

SAN FRANCISCO ESTUARY INSTITUTE & THE AQUATIC SCIENCE CENTER

**Joint Meeting of the Boards  
Aquatic Science Center and San Francisco Estuary Institute**

**To Be Held  
December 7, 2011  
9:30 a.m. – 3:30 p.m.**

**San Francisco Estuary Institute  
4911 Central Avenue  
Richmond, CA 94804  
First Floor Conference Room**

**Joint Business**

- |       |   |   |
|-------|---|---|
| 9:30  | Call to Order and Approval of Agendas   | Dave Williams<br>Jim Fiedler                |
| 9:35  | Welcome to both Boards and Thank-You to Outgoing Board Members  | Jim Fiedler, Rainer Hoenicke, Dave Williams |
| 10:00 | SFEI and ASC Audit Highlights and Audit Committee Recommendations, Brief Q&A ( <b>Attachment 1</b> )                                | Dave Tucker<br>Howard Zangwill              |
| 10:15 | ED Report and Quarterly News Highlights ( <b>Attachment 2</b> )   | Rainer Hoenicke                             |
| 10:30 | Update on Mercury Exposure Reduction Project ( <b>Attachment 3</b> )  | Rainer Hoenicke,<br>Alyce Ujihara, CDPH     |
| 11:15 | Toward Board Unification, Phase 1: Reducing the size of the "Transition Board." Short-term governance needs ( <b>Attachment 4</b> ) | Rainer Hoenicke<br>Kelleen Griffin          |

4911 Central Avenue, Richmond, CA 94804  
phone 510-746-7334 fax 510-746-7300  
www.sfei.org • www.aquaticscience.org

11:45 Clarifications to Goal 3 of ASC-SFEI Strategic Plan  
(Attachment 5) Jim Fiedler

**12:15 LUNCH BREAK**

12:45 Update on Marine Life Protection Act and status  
on San Francisco Bay Options Report under the  
Marine Protected Areas program. Rainer Hoenicke

1:00 Strategic Plan Implementation Update  
and SMART Action Plan Process (Attachment 6) Rainer Hoenicke

1:30 Set 2012 Meeting Dates and Proposed Agenda Items

**ASC Business Meeting**

1:45 Public Comments Dave Williams

2:00 Action Items

- ☐ Approval of September 1, 2011, Meeting Minutes Dave Williams  
(Attachment 7)
- ☐ Approval of Program Plan Update and Budget Rainer Hoenicke  
(Attachment 8)

2:25 Adjourn

**SFEI Business Meeting**

2:30 Consent Calendar Jim Fiedler

- ☐ Approval of Agenda
- ☐ Approval of September 9, 2011, Meeting Minutes  
and Follow-up Actions (Attachment 9)

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2:35 Admin-Fiscal Update **(Attachment 10)**

Trish Mulvey  
Dave Tucker  
Kelleen Griffin

- ☐ Indicators of Financial Health
- ☐ Personnel Update

2:50 Approval of 2012 Program Plan and Budget  
**(Attachment 8)**

Rainer Hoenicke

- ☐ Resolution Approving Plan **(Attachment 11)**
- ☐ Resolution Delegating Authority to ED **(Attachment 12)**

3:15 Adjourn for Building Tour



November 30, 2011

Board of Directors  
San Francisco Estuary Institute  
4911 Central Avenue  
Richmond, CA 94804

Board Members:

In planning and performing our audit of the financial statements of the San Francisco Estuary Institute for the year ended December 31, 2010, we considered its internal control in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements and not to provide assurance on internal control. However, during our audit we became aware of several matters that are opportunities for strengthening the operating efficiency of the Organization. The memorandum that accompanies this letter summarizes our comments and suggestions regarding those matters.

We will review the status of these comments during our next audit engagement. We would be pleased to discuss them in further detail at your convenience, to perform any additional study of these matters, or to assist you in implementing the recommendations.

This report is intended solely for the information and use by the Board of Directors, management, and others within the Organization and is not intended to be and should not be used by anyone other than these specified parties.

RINA accountancy corporation

*Howard Zangwill*

Howard Zangwill, Stockholder

HZ:js



# **SAN FRANCISCO ESTUARY INSTITUTE**

## **MEMORANDUM OF MANAGEMENT POINTS**

**YEAR ENDED DECEMBER 31, 2010**

### **Summary and Status of Prior Year Recommendations – Management Letter:**

#### **IMPROVE PASSWORD SECURITY:**

During our audit, we noted four Deltek Vision software users without passwords. Therefore, anyone with access to the user's windows application can gain unauthorized access to the computer and thus to the Institute's networks. Some computer specialists have estimated that as much as 80% of network security breaches occur from within the network rather than from outside hackers. We recommend that management require employees to set up secure passwords.

#### **Management's response:**

Passwords were established on the accounts that lacked them within an hour or two of it being brought to management's attention. The IT manager is coordinating future password and access level assignment in Vision, and will ensure any new accounts are assigned passwords.

#### **Status as of October 15, 2011**

Passwords and access level assignments in Vision were established and new accounts are assigned passwords.

### **Current Year Recommendations – Management Letter:**

#### **STAGGER PAY PERIOD FOR HOURLY EMPLOYEES**

Hourly Employees are required to estimate their time for the final 2 -3 days of each pay period so that payroll can be paid on the 15<sup>th</sup> and final day of each month. This causes a situation whereby any difference between the employee estimate and the actual hours worked by that employee is reconciled on the following pay period by either adding or subtracting the difference. We recommend that the Institute stagger its pay period for hourly employees such that there is no need to estimate the hours. Hourly employees can still be paid on the 15<sup>th</sup> and last day of the month for time incurred thru the 12<sup>th</sup> day of the month and three days before the month's end. In addition to the eliminated the time it takes to prepare the reconciliation, this will result in employees not needing to estimate time to be worked and decrease the risk of misstatement caused by having to reconcile employee pay between two pay periods.

#### **Management's response:**

Management concurs that SFEI should start the pay period for non-salaried staff on the 28<sup>th</sup> day of one month and end it on the 12<sup>th</sup> (instead of the 1<sup>st</sup> and 15<sup>th</sup> of each month) and similarly for the second pay period of each month.

## **SCENARIO PLANNING**

Scenario planning helps organizations anticipate events and improves its ability to stay ahead of the curve. It is a strategic planning method that some organizations use to make flexible long-term plans. In today's unpredictable environment we recommend our clients' have plans for both "normal" trends and growth as well unforeseen changes such as demographics, geography, industrial information with plausible alternative social, technical, economic, and political trends. Scenario planning allows you to explore alternatives to "the official future", which is the set of shared assumptions about the future in the organization. For example, does global warming and the rising sea level change SFEI's role in monitoring the bay? In addition, with State and Federal funding in a constant state of flux, we recommend organizations prepare for different scenarios and constantly keep an eye out for flags indicating a change is needed. With proper scenario planning you can be prepared to adapt your strategy for the constant changes, stay ahead of the curve and maintain a viable organization.

### **Management's response:**

Your recommendation for scenario planning, while logical and an excellent practice, would currently be too burdensome of an effort for an organization of our size. Instead of developing scenarios, we intend to increase the size of our net cash reserve to 3-4 months of operating expenses.

## **AUTHORIZED CONTRACT SIGNATURES**

After organizations restructure or add new management positions it is often a good time to review certain procedures certain processes and procedures. One such procedure we recommend you consider changing is having two people authorized to sign contracts. Currently the Executive Director is the only one with the authority to do so. We recommend the Deputy Director be the backup when the Executive Director is on vacation or unavailable.

### **Management's response:**

Our current Board policy is to delegate signature authority to one person only - the Executive Director. We have not had any instance since our founding where the temporary absence or unavailability of the Executive Director has created a problem. Many other organizations do not delegate and have the Board Chair retain this authority exclusively. In our case, the Board Chair could easily step into that role in an emergency.

SFEI Audit Committee Conference Call  
August 16, 2011  
1:30pm-2:30pm

**Present**

Chuck Weir  
David Tucker  
Miles Burnett  
Rainer Hoenicke  
Kelleen Griffin  
Frank Leung  
Stephanie Seto

**Absent**

Steve Slakey

Ms. Griffin briefly reviewed the engagement letter from RINA. Mr. Tucker made a motion to approve the letter and all was in favor. Next steps- Dr. Hoenicke will sign the letter and return to RINA.

Ms. Griffin reviewed the budget and dashboard.

The Committee requested to see the financial statements (in lieu of the dashboard and budget graphs) along with future Agenda packages.

There was discussion regarding a change of Auditors for 2011. The Committee was in favor of this action. An RFP will be drafted and proposals will be reviewed by the end of the first quarter or beginning of the second quarter by the Committee. The Committee will then vote on a new Auditor.

It was suggested that other 501c3's be contacted for suggestions on choosing a new Auditor.

Meeting adjourned at 2:30pm.

# executive Director's Quarterly Report



2011 • Quarter 4

## in this issue

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News & Notables

Impact

Media

9  
CommuniCationS

Publications, Posters  
& Presentations

Events & Appearances

Brown Bags

Upcoming

Spotlight



## The Year of Change

*This past year was marked by profound changes that will likely carry over into 2012. The Boards of the Institute and Aquatic Science Center decided to explore joint governance, following their adoption of a new strategic plan common to both organizations. New staff members are adding expertise and fresh perspectives that are expected to benefit the execution of new directions, partnerships, and how we inform achievement of environmental benchmarks for our region and beyond. In response to the new strategic plan, board composition and staff organization are likely to change. And after ten years of being housed in Oakland, the Institute just moved into a new space at Point Isabel in Richmond.*

*Change is both unsettling and full of promise, and I am proud of every team member for not only coming through on major project commitments but also dedicating uncountable hours to articulating their professional aspirations and aligning them, in close partnership with our Boards of Directors, with our new strategic directions. I am hopeful that both staff and Board investments in the organization and its mission will bear long-term fruit. My sincerest thanks to all that have had the courage to come along on this path.*

— RaiNeR HoeNiCke, exeCutive DiReCtoR

*Our new 1st Floor  
conference room*





August 29, 2011

Donald F. Gage, Chair  
Board of Directors  
Santa Clara Valley Water District  
5750 Almaden Expressway  
San Jose, CA 95118-3686

Ecological Monitoring & Assessment Framework, Stream Ecosystem Profile: Coyote Creek Watershed Report dated March 31, 2011

Dear Mr. Gage:

I am writing on behalf of the California Wetland Monitoring Workgroup to express appreciation for the presentation given to us by Louisa Squires of the Water District's staff on your Ecological Monitoring and Assessment Framework and how you have recently applied it in the Coyote Creek Watershed.

We were struck by the depth and breadth of the Framework, its consistency with the "1-2-3 Framework" of CA Water Quality Monitoring Council's Wetland and Riparian Area Monitoring Strategy, and the high quality of the data you have developed. We also value the degree to which you linked the monitoring data to clear management questions. We are especially impressed with the consistency between your use of the framework and other regional, statewide, and even national applications.

We believe your report will be of interest to other water districts, flood control agencies, local government, as well as state and federal agencies that are exploring innovative ways to implement the newly adopted monitoring strategy.

We look forward to future collaboration with the District as you continue to expand your wetland and riparian monitoring efforts throughout your areas of interest. If you have any questions or would like to discuss this further, please contact me at 916-521-8021 or by email at [cjwilson@dfg.ca.gov](mailto:cjwilson@dfg.ca.gov).

Sincerely,

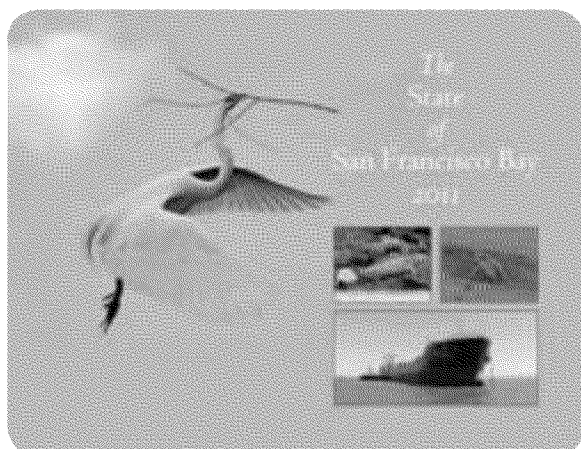
A handwritten signature in blue ink, appearing to read "Craig D. Wilson".

Craig D. Wilson  
Co-Chair

aug 29

## **New environmental monitoring and assessment framework put into practice to meet local district needs and meet federal mitigation guidance**

The California Wetland Monitoring Workgroup of the Water Quality Monitoring Council recently recognized the Santa Clara Valley Water District for demonstrating how stream ecosystem profiles can provide answers to the District's management questions related to the performance of projects, programs, and policies intended to protect and manage aquatic resources in cost-effective ways. The Institute, in collaboration with EOA, Inc., provided the science support to the Water District. This effort provides a concrete example of one of the key objectives in our newly adopted Strategic Plan to "...assist with vertical and horizontal integration of science-based governmental decisions." The Framework is a tool that is capable of meeting local needs (e.g., evaluating risks to natural and infrastructure assets), state regulatory oversight and accountability tracking, as well as federal and state policy implementation.



sep 19

**state of an Francisco bay 2011 Report**

Authors: Andy Gunther, **Josh Collins**, **David Davis**, **Thomas Jabusch** and others

Released at the State of the Estuary 2011 Conference, The State of San Francisco Bay 2011 presents a science-based assessment of the health of San Francisco Bay. The authors reviewed available data and developed methods for evaluating the status and trends of the Bay's vital signs. By providing all interested parties with these results, the broader community can consider whether resource managers, regula-

tors, and citizens are taking enough of the right actions to protect the Bay. With this assessment, the San Francisco Estuary Partnership will begin to report on the state of the Bay on a regular basis, with the goal of educating the public and helping scientists and managers make decisions about how to best allocate resources to protect and restore the Bay.

meDia sep 19

**san Francisco bay getting Healthier, Not in the Clear Yet.** **Report on sF. bay Details progress, problems.**

San Jose Mercury News,  
by Paul Rogers

[http://www.mercurynews.com/science/ci\\_18927046?aidID=search-www.mercurynews.com-www.mercurynews.com](http://www.mercurynews.com/science/ci_18927046?aidID=search-www.mercurynews.com-www.mercurynews.com)

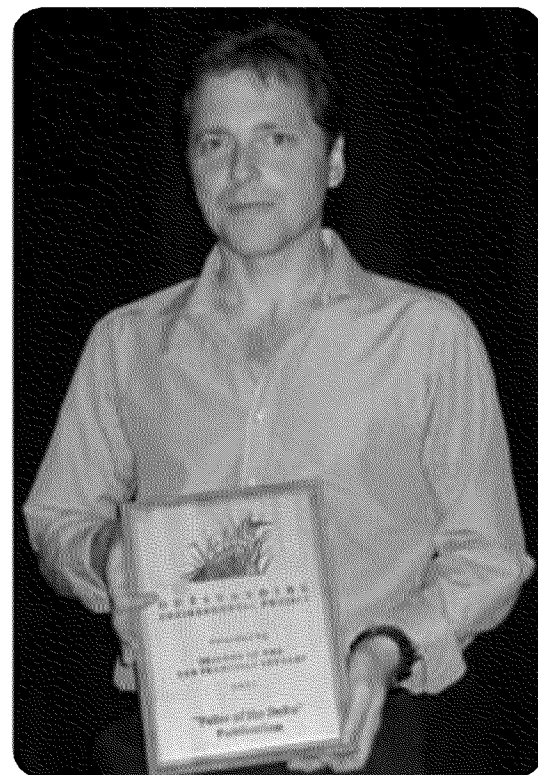
San Francisco Chronicle,  
by Carolyn Jones

<http://www.sfgate.com/cgi-bin/article.cgi?f=/c/a/2011/09/19/mNka1I69Ca.DtI>

sep 21

**pulse of the Delta receives outstanding environmental project award**

Friends of the Estuary selected **aquatic science Center's pulse of the Delta** for an Outstanding Environmental Project Award in the category of Public Involvement and Education. It is one of six projects awarded this year. **thomas Jabusch** received the award at the 2011 State of the Estuary Conference on behalf of the production team. Nominated by Pamela Creedon, Executive Officer of the Central Valley Regional Water Board, the Pulse of the Delta was selected in part due to its promise to provide much needed water quality information to a diverse audience. Modeled after the San Francisco Bay RMP's Pulse of the Estuary, the emerging Delta RMP has launched the Pulse of the Delta as its first major product. Current plans are to publish the Pulse of the Delta annually. Thomas shares the recognition with an entire team of staff at Aquatic Science Center and the Central Valley Regional Water Board as well as all the contributors that helped make the Pulse of the Delta possible.







sep 27 &amp; 28

**trip Report**

**stanford social innovation  
Review, stanford, @  
Nonprofitmanagement  
institute Conference**

by **kelleen giffin**Conference focus: **Funding models and Collective impact.**

There were 315 participants at the Conference. I was able to speak with 57 of them. The following are some of the highlights of those discussions.

Spoke with *Jim Bower*, Executive Director, Law Foundation of Silicon Valley. Jim has quite a few connections in and around the area, including knowing the head of the Stanford Law Clinic, Larry Marshall. This is a free law clinic, and it does transactional work as well as contract negotiations and labor relations. Free.

Spoke with *Professor Buzz Thompson*. He gave one of the presentations: *Working Across Institutions, Sectors, and Disciplines*. He directly introduced me to the head of the Stanford Alumni Consulting Team, SACT: *Karl Matzke*. This is a group that can be engaged to perform specific research and inquiry for free. *Russell Hamilton* joined the conversation, he is from Visa International but most of his background is environment. SACT is particularly interested in nonprofits in the environmental sector. Good news for us. Karl informed me that they just finished a review for American Farm Land Trust where the objective was to size the market for ecosystem services.

Spoke with *Claire Thompson*, Executive Director of McGroarty Arts Center. She accomplished a Board shift very similar to our Strategic Priority #3. Claire laid out the whole process they went through including bringing in a consultant, a woman named Elisa Callow. For the meager fee of \$6,000, Elisa interviewed all Board members, conducted several Board presentations and workshops, and liaised with Claire over a three-year period to shift the

Board toward more participative involvement, particularly on fundraising. Key insights: develop the transactional documents, i.e. By-laws and Board Member

Job Description. As an aside, heard over and over that most people who are asked to sit on Boards won't do it if they ask for the one page Board Member roles and responsibilities description and the response is, 'oh, we don't have one.'

Spoke with *George Leonard*, PhD., Director, Aquaculture Program at Ocean Conservancy. George mentioned one of his big challenges right now is getting the scientists to communicate better, he specifically mentioned challenges with email. He told me he enjoyed the communication and persuasion presentation by *Frank Flynn*, Tuesday morning and is wondering how to shift his culture away from using email as the primary source of dialogue.

**overAll**

Conference itself was fantastic with many good to excellent presentations. Spoke with *Peter Kim*, who presented the ten funding models for nonprofits that he and others at Bridgespan have illuminated through their research. His research and presentation were what brought me to the conference. Specific question for SFEI: what should our funding model be?

Since his research is based in part on RARE Conservation, a nonprofit in the environmental space and one of my former colleagues, Martha Piper, is on the senior management team over there, we agreed that my next stop is to call Martha. RARE did extensive research on their optimum funding model. One of the insight-

ful quotes from RARE's CEO Brett Jenks, was the comment he made about constantly being plagued by team members and the Board to evaluate new



**Stanford SOCIAL  
INNOVATION REVIEW**

Continued on next page

sources of funding, 'we should do direct mail, we should have a campaign', etc. Elucidating the optimum funding model and investing in it in a coordinated way, without constant diversion, saved RARE time, money, and headache.

Of particular interest to me/SFEI is the hybrid approach, bridging us to a secondary source of funding that can capacity-build. The concept here is one of 'good overhead' - technology, people, and other resources. Our existing primary funding model is best described as Public Provider; and while this accurately reflects where the majority of funds comes from today, it also points to the reason why we have not hit homes runs on the communication front! (A Big C communication strategy was not needed to communicate with our decision makers under the Public Provider model.) Not to mention an overreliance on government contracts makes us vulnerable to their funding peaks and troughs.

If we shift to embracing a secondary funding source and model, like Big Bettor or Market Maker, we inherently shift the need and focus of our communication strategy, giving rise to the need to develop Big C communication strategy.

**all of this information was presented irration bag to staff on october 24, 2011**

oCt 5

## **Josh Collins gives a presentation at the 10th annual biD Foundation Law and Policy Conference**

Josh gave the opening address titled: "It's Your Science, Too" at the 10th Annual BILD Foundation Law and Policy Conference in Los Angeles, sponsored by the Building Industry Legal Defense Foundation. Josh also participated in a panel focused on "New Regulatory Pressures on Riparian Corridors, Federal Wetlands Jurisdiction, Numerical Limits, and Low Impact Design Challenges." The building industry is keenly interested in the evolving federal and state policies requiring a watershed approach to mitigation planning while improving protection of riparian buffers. This was an initial effort by Josh to learn directly from the regulated community about its regard for the science supporting policy development. One message from the panel and its audience was that the science seems tailored to the regulatory agencies, and not independent of them. As one panelist remarked "All we have to do is follow the money; it's pretty clear who pays you." One outcome from the conference will be a dialogue within SFEI-ASC about the meaning of independent science, its importance to the organization, how we achieve and maintain safeguarding it, and how we convey our independence to the communities that are affected by our work. More interaction with the regulated community will be sought, and this will likely influence the analysis by SFEI-ASC about future business models.

### **what is independent science?**

#### **Qualities of independence**

- The clear intent is to advance debates rather than win arguments
- Personal bias is minimized to maintain actual and perceived neutrality and objectivity
- The technical uncertainties of conclusions and recommendations are clearly articulated.
- Financial or political interest do not influence the scientific outputs





For Immediate Release: October 11, 2011

Contact: Nahal Mogharabi, [nogharabi.nahal@epa.gov](mailto:nogharabi.nahal@epa.gov)

## **EPA Finalizes California's List of Polluted Waters**

*Trends Include 170% Increase In Toxicity Listings Since 2006*

**SAN FRANCISCO**—More of California's waterways are impaired than previously known, according to a list of polluted waterways submitted by the state to the U.S. Environmental Protection Agency and finalized by the agency today. Increased water monitoring data shows the number of rivers, streams and lakes in California exhibiting overall toxicity have increased 170 percent from 2006 to 2010.

California has some of the most magnificent rivers, lakes and coastal waters in the country. However, of its 3.0 million acres of lakes, bays, wetlands and estuaries, 1.6 million acres are not meeting water quality goals, and 1.4 million acres still need a pollution clean-up plan known as a Total Maximum Daily Load (TMDL). Of the 215,000 miles of shoreline, streams and rivers, 30,000 miles are not meeting water quality goals and 20,000 miles still need a TMDL. The most common contaminants in these waterways are pesticides and bacteria, followed by metals and nutrients.

"Clean water is vital to California's public health, economy, recreation and wildlife," said Jared Blumenfeld, EPA's Regional Administrator for the Pacific Southwest. "California has done an excellent job of increasing the amount of water monitored. Unfortunately, much of the new data points in the wrong direction. This list of impaired waters is a wake-up call to continue the critical local and statewide work needed to heal California's damaged waters."

The Clean Water Act requires states to monitor and assess their waterways and submit a list of impaired waters to EPA for review. The 2010 list is based on more comprehensive monitoring as well as new assessment tools that allow the state to evaluate larger quantities of data.

The data showed several important trends including:

- Many more beaches, both inland and coastal, are on the 2010 list because bacteria reached unsafe levels for swimming. This increase is largely driven by a more extensive review of data collected by counties.
- Better reporting of trash in waters has led to an increase in trash impairments by 76% from 2006 to 2010. California's statewide Trash Policy is under development and will address trash impacts to both local wildlife and reduce California's contribution to the Great Pacific Garbage Patch.
- The numbers of listings showing pollutants in fish are at levels too high for safe human consumption has increased 24% from 2006 to 2010, with the greatest increases seen in mercury. Rather than signaling an increase in fish contamination, this trend is due to California's recent statewide sport fish monitoring effort. Additionally, some pollutants such as DDT are no longer manufactured and are slowly decreasing in concentration over time.

excerpt  
of  
epa bulletin

Oct 11

## **u.s. epa Finalizes California's list of polluted waters**

SFEI/ASC contributed a lot of data on fish contamination that led to new TMDL listings. In the past, the State didn't have a consistent approach to listing impaired water bodies, and nobody could determine what percentage of water bodies was meeting or not meeting water quality targets. Now, we are getting closer to finding out which water bodies are in good condition, where more cost-effective preventive efforts will keep water bodies from degrading, and which water bodies require more expensive clean-up and restoration efforts. The new monitoring approaches allow regulators to manage and regulate along the lines of: "An ounce of prevention is worth a pound of cure."

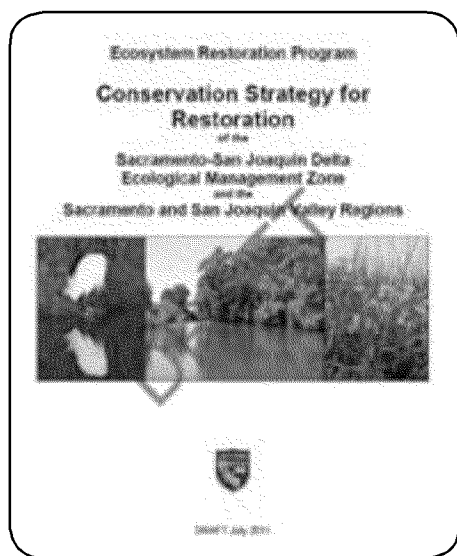
We have seen much progress on industrial and municipal pollution sources, but not so much on the myriad of diffuse sources that often add up to significant water quality degradation. In the future, it will become increasingly important to think about water quality impacts as changes in land cover are proposed (e.g., new urban development, conversion of forest to crops) so changes in runoff patterns and pollutant transport can be avoided or mitigated.

oCt

## Historical ecology in recent Delta planning document

Aquatic Science Center's Historical Ecology Study of the Sacramento-San Joaquin Delta is being used extensively in current planning efforts. The study is cited substantially in the draft Delta Plan of the Delta Stewardship Council, and "an understanding of the historical complex of habitats and underlying processes and functions that once existed" is recognized as a critical foundation for Delta ecosystem restoration in California Department of Fish and Game's draft Conservation

Strategy for Restoration of the Delta ([http://www.dfg.ca.gov/eRp/reports\\_docs.asp](http://www.dfg.ca.gov/eRp/reports_docs.asp)).



Nov 4

## uncommon Dialogues: California water Data

Meredith Williams participated in a workshop hosted by the Resources Legacy Fund and Stanford's Water and the West program to discuss California's data management needs for water-related data. The workshop was convened by Stanford's Water and the West Center as a follow up to their 2009 Coordinated Water Measurement Feasibility Study Report (FSR) to the SWRCB. The workshop was structured as a dialogue between a wide range of stakeholders. The more than 30 participants included agency representatives (SWRCB, DWR, and DFG), foundation program directors (Packard and Bechtel), legislative aides, academics, NGOs, et al. The Water Board was represented by Tom Howard, Francis Spivey Weber, Jon Bishop, and Karen Larsen.

The group consensus was that while the need for better data aggregation and access is pressing, the preferred approach would be a distributed system rather than a centralized database. The Aquatic Science Center will participate in follow up discussions about possible approaches to create a federation of data resources that provide access to data providers and data users.

Nov

## Journal article by SFEI staff makes most Read list

A journal article Susan Klosterhaus co-authored to made it into Environmental Science & Technology's third Quarter's Most Read List. <http://pubs.acs.org/doi/abs/10.1021/es2007462>

### ENVIRONMENTAL Science & Technology

ARTICLE  
pubs.acs.org/est

#### Identification of Flame Retardants in Polyurethane Foam Collected from Baby Products

Heather M. Stapleton,<sup>1,\*</sup> Susan Klosterhaus,<sup>2</sup> Alex Keller,<sup>3</sup> P. Lee Ferguson,<sup>4</sup> Saskia van Bergen,<sup>5</sup> Ellen Cooper,<sup>6</sup> Thomas F. Webster,<sup>6</sup> and Arlene Blum<sup>7</sup>

<sup>1</sup>Nicholas School of the Environment, Duke University, Durham, North Carolina, United States

<sup>2</sup>San Francisco Estuary Institute, Oakland, California, United States

<sup>3</sup>East Bay Municipal Utility District, Oakland, California, United States

<sup>4</sup>Department of Environmental Health, Boston University School of Public Health, Boston, Massachusetts, United States

<sup>5</sup>Department of Chemistry, University of California, and Green Science Policy Institute, Berkeley, California, United States

<sup>6</sup>Supporting Information

Nov

**susan klosterhaus elected to be chair of the organizing committee for the 2012**

Susan Klosterhaus was elected to serve on the Program Committee for the SETAC North America 2012 meeting in Long Beach, CA. She is also serving as co-chair of the Science subcommittee, along with Steve Bay from SCCWRP.

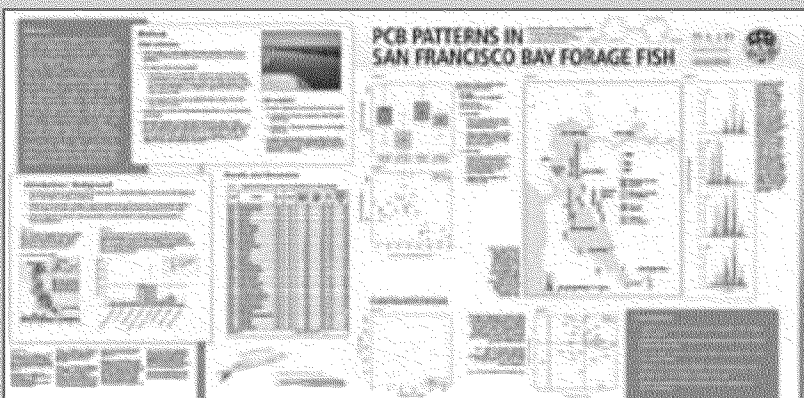
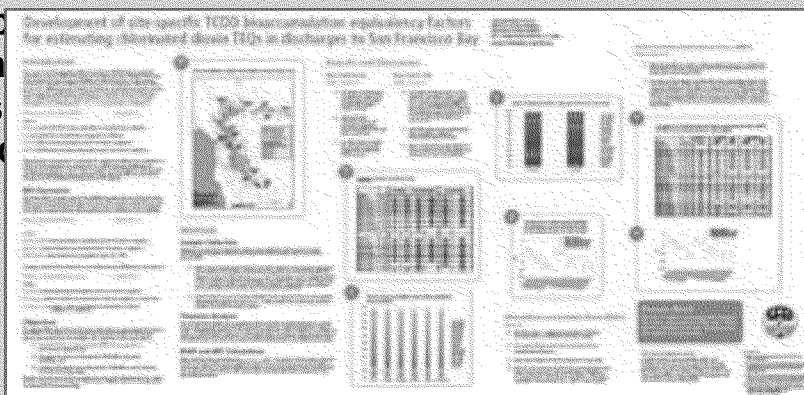
Some key insights:

- There are a growing number of efforts worldwide to prioritize contaminants of emerging concern (CECs). The RMP is currently monitoring CECs that others have also identified as important and is helping lead the way toward new approaches for their identification.
- There are an increasing number of studies monitoring PBDE replacement flame retardants in the environment. Our work to identify the chemicals currently being used has motivated others to study them.
- Ecosystem toxicity assessments are beginning to shift toward 'effects-directed' analysis, which include development and application of high throughput chemical screening techniques and complement traditional targeted chemical monitoring.

**posters from the setac North America 32nd annual meeting Nov 13-17**

**Development of site-specific  
tCDD bioaccumulation  
equivalency factors  
for estimating chlorinated  
dioxin TCs in discharges  
to San Francisco Bay**

Susan Klosterhaus, Don Yee,  
John Ross, and Aroon Melwani



**pCb patterns in  
san Francisco Bay  
Forage Fish**

Rachel Allen  
& Ben K. Greenfield



**in the News**

sep 9

**Historical ecologists inform Restoration strategies in Ventura County**

article title: Conservation groups give update on Santa Clara River efforts

by: tony biasotti, Ventura County Star

**excerpts from the article:**

*"The California Coastal Conservancy, a public state agency that's leading the drive to return the river to something approximating its natural state, hosted a workshop on the project Thursday at the Ventura County Government Center. About 60 people from the public and private conservation worlds showed up to hear presentations on five studies of the river and the surrounding watershed."*

*"The Santa Clara River is one of the last natural rivers in Southern California. Unlike the Los Angeles River, it hasn't been turned into concrete channels. But it has been altered by centuries of agriculture, development and flood control efforts, and one of the Santa Clara River Parkway group's goals is to reverse some of those effects."*

*For example, the river has lost more than half of its width in some places, making it more volatile in floods, according to a report by researchers Robin Grossinger and Erin Beller on the river's history.*

*"We've lost, in effect, some of the shock absorbers," Grossinger said.*

Nov 20

**Historical ecology and Designing the Future by SF Chronicle story**

article title: San Francisco Bay conservation 2.0

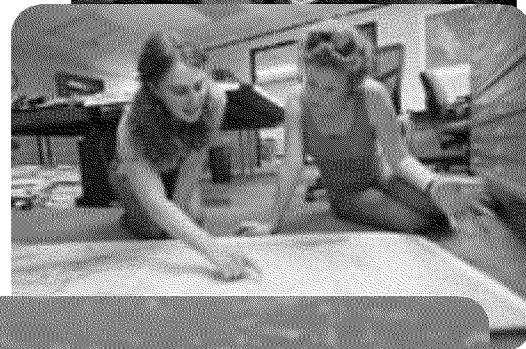
by: Jon Christensen, San Francisco Chronicle

**excerpts from the article:**

*'Grossinger recounted the history of the creation of the bay as the sea level rose over the past several thousand years and covered what used to be a valley between the East Bay and the Peninsula. Marris marveled: "That means there is no pre-human bay." Indeed, people have lived by and shaped the bay's nature as long as it has existed.'*

Science writer  
Emma Marris  
with SFEI staff

photos by  
Matthew Sumner,  
special to the SF Chronicle



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*September 20-21, 2011*  
**State of the San Francisco Estuary Conference**  
10th Biennial Conference

**posters**

**bay area aquatic Resource inventory**

Kristen Cayce, Marcus Klatt, Jamie Kass,  
Meredith Williams and Josh Collins

(bottom left)

**Dissolved Nitrate and phosphate  
Concentrations in an Francisco  
estuary surface waters: spatial  
Distribution (2002-2009) and  
temporal trends (1993-2009).**

John Ross

**evaluation of loads of mercury, PCBs,  
pbDes, pahs, Dioxins, and Furans from  
the sacramento san Joaquin River Del ta  
to san Francisco bay**

David Gluchowski, Nicole David, Lester  
McKee and Jon Leatherbarrow

**the song sparrow as a biosentinel for  
methylmercury in Riparian Food webs of  
the san Francisco bay area**

April Robinson, Letitia Grenier, Marcus Klatt,  
Shira Bezalel, Meredith Williams  
and Josh Collins (bottom right)

**who's monitoring what where?**

**Developing the Central Valley  
water Quality monitoring inventory**  
Mike May

**presentations sep 20**

**state of the bay 2011: baylands**  
Josh Collins

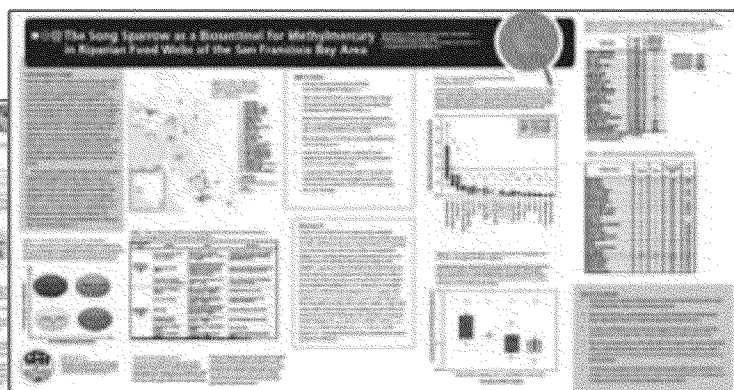
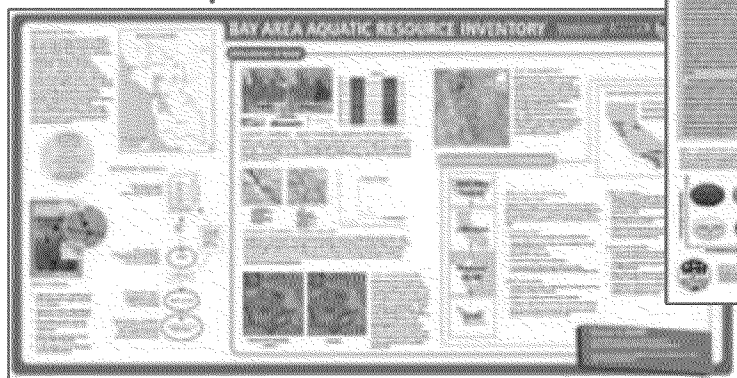
**Resilient landscapes: lessons from  
History**  
Robin Grossinger

**improving water Quality i - moderator**  
Meg Sedlak

**state of the bay: water Quality  
indicators**  
Jay Davis

**presentations sep 21**

**exploring past landscapes of the Delta:  
gaining insights for the future**  
Alison Whipple



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**Reports**

**gilbreath, a N., Yee, D. and mckee, I. J.**  
(2011) Concentrations and Loads of Trace Contaminants in a Small Urban Tributary, San Francisco Bay, California. A Technical Report of the Sources Pathways and Loading Work Group of the Regional Monitoring Program for Water Quality: Contribution No. 650. San Francisco Estuary Institute, Richmond, California. pp 39

**greenfield, b k., allen, R., melwani, a R.,**  
Slotten, D. G., Ayers, S. M., Hintelmann, H., Dimock, B., Jahn, A., Harrold, K., Ridolfi, K. and Sandheinrich, M. Mercury and polychlorinated biphenyls in San Francisco Bay forage fish. Final project report for the RMP biosentinel monitoring study. Contribution No. 642. San Francisco Estuary Institute, Oakland, California.

**sFei 2011.** East Contra Costa Historical Ecology Study. Prepared for the Contra Costa County and the Contra Costa County Watershed Forum. A Report of SFEI's Historical Ecology Program, SFEI Publication #648, San Francisco Estuary Institute, Oakland, CA.

The Association of Bay Area Governments and the **san Francisco estuary institute** (2011). White Paper on Public Policy Options for Water Quality Improvements in the Critical Coastal Areas. Report prepared for SWRCB Agreement #06-345-552-0. Contribution No. 645. San Francisco Estuary Institute, Oakland, California

**Yee, D., B. Bemis, D. Hammond, W. Heim, B. Jaffe, A. Rattonetti, S. van Bergen.** 2011. Age Estimates and Pollutant Concentrations of Sediment Cores from San Francisco Bay and Wetlands. A Technical Report of the Regional Monitoring Program: SFEI Contribution 652. San Francisco Estuary Institute, Oakland, CA. 45pp + Appendices A, B and C.

**posters**

sep 20-21

**state of the estuary Conference**

For a list of posters see page 10

Nov 13-17

**setaC Conference**

For a list of posters see page 8

**presentations**

sep 29

**Rebecca solnit, Richard walker, & Ruth askevold addressed the plenary of the association of Pacific Coast geographers**  
Rebecca Solnit, Richard Walker, and Ruth Askevold opened the 74th annual meeting of the Association of Pacific Coast Geographers with a discussion on "Green Possibilities: What does San Francisco Offer?" The conference was hosted by the Department of Geography at San Francisco State University, and was held at the Holiday Inn at Fisherman's Wharf (San Francisco) from September 28 - October 1, 2011.

Oct 5

**Robin grossinger on the 1st annual Conference of Historical ecology in Zurich**

SFEI's Robin Grossinger reported back on Frontiers in Historical Ecology conference he attended on August 30, 2011. The conference was held in Zurich, Switzerland.

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Oct 27

SFEI presented two separate talks at the Alameda Creek Watershed Council Annual Conference: 10:00 - 10:50 **Robin grossinger** Historical Ecology: Designing Resilient Watersheds: Lessons from History. 2:00 - 2:40 **Julie leagle** and **sarah pearce**, Watersheds Program: Sediment Reconnaissance of Stony brook and Sinbad Creek Watersheds—Understanding sediment sources to the Flood Control Channel and Bay

**eric sanderson and Robin gossinger presentation in Walnut Creek: live! from the library.** On September 12, 1609, Henry Hudson first set eyes on the land that would become Manhattan. It's difficult for us to imagine what he saw, but for more than a decade, landscape ecologist (and Las Lomas graduate) Eric Sanderson did just that. *Mannahatta: A Natural History of New York City* is the astounding result of those efforts, reconstructing, in words and images, the wild island that millions of New Yorkers now call home. The Walnut Creek Library Foundation featured noted landscape ecologist Dr. Eric Sanderson, Senior Conservation Ecologist in the Global Conservation Programs of the Wildlife Conservation Society (NY) and author of *Mannahatta: A Natural History of New York City* (Abrams; May 2009) on October 27, 2011. **Robin grossinger** from the San Francisco Estuary Institute joined Sanderson to discuss the institute's historical ecology assessment of natural resources in East Contra Costa County and the ecological history of the Walnut Creek Valley.

Nov 8

**alison whipple** presented at the recent Coastal and Estuarine Research Federation conference; she was one of relatively few Bay Area representatives. The conference, entitled "Societies, Estuaries and Coasts: Adapting to

Change," included a more focused look at the human component in ecosystems than it had in the past. Consequently, there were sessions and synthesis discussions examining how science is applied, what scientific management tools are needed, and how scientific research should be guided by the questions of managers and planners. Alison attended a wide range of talks and found many to be quite relevant to different aspects of science and management in the greater Bay Area. Topics included: decision support tools for restoration planning, ecosystem based management, Columbia River research evaluating actions in terms of ecological functions, tidal wetlands processes and dynamics, a Climate Ready Estuaries project, shoreline change tools, ecosystem services evaluation tools, and many more. Alison also attended a workshop, "Scientists as Communicators and Educators," that provided guidance on how to get one's main point across through storytelling. Alison's talk was entitled, "Historical ecology of the Sacramento-San Joaquin Delta: Reconnecting habitat pattern and process at the landscape scale," which focused on how historical ecology can help establish needed information to implement broad restoration principles (e.g., restore large and interconnected habitats).

Nov 10

**erin bell** presented findings from the Ventura County historical ecology study at the Ventura County Wetlands Task Force: Reconstructing 200 Years of Change on the Ventura River: findings from the Ventura County historical ecology study.



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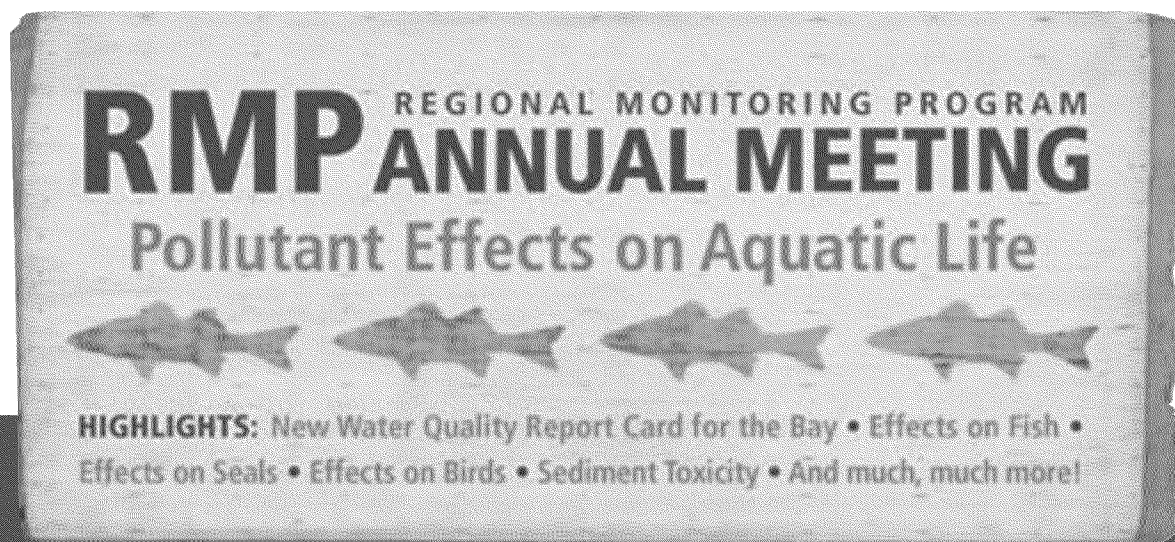
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Oct 4

**Rmp annual meeting**

The RMP Annual Meeting was held on Tuesday, October 4, 2011 at the Oakland Marriott City Center. The meeting focused on pollutant effects on aquatic life, and featured a keynote presentation by Dan Schlenk, University of California Riverside, on contaminant effects on fish.

The meeting also provided updates on the recently released water quality report card, monitoring and effects studies on fish, birds, and seals, and the status of the RMP nutrients strategy. About 160 people attended the meeting, and feedback on the meeting was very positive.

**moderator**

Rainer Hoenicke (SFEI)

**pollutant effects**

**on Fish** • **emerging Contaminants**  
Dan Schlenk (UC Riverside)

**New safe eating**

**guidelines for lay Fish**  
Margy Gassel (California Office  
of Environmental Health Hazard  
Assessment)

**Nutrient science strategy**

David Senn (SFEI)

**Nutrient management**

Naomi Feger (San Francisco  
Bay Regional Water Quality  
Control Board)

**a water Quality Report  
Card for the bay**

Jay Davis (SFEI)

**beach water Quality**

Mike Kellogg  
(City and County of San Francisco)

**Contaminants in port Fish:**

**the bay in a statewide Context**  
Aroon Melwani (SFEI)

**sediment and aquatic toxicity:**

**the bay in a statewide Context**  
Brian Anderson (UC Davis)

**molecular methods for  
stressor identification  
in sediment toxicity tests**

Steve Bay (Southern California Coast  
al Water Research Project)

**oil spill and pH effects on Fish**

John Incardona (National Oceanic  
and Atmospheric Administration)

**patterns of mercury and pCb  
accumulation in small Fish**

Ben Greenfield (UC Berkeley)

**pollutants in Harbor seals**

Denise Greig  
(The Marine Mammal Center)



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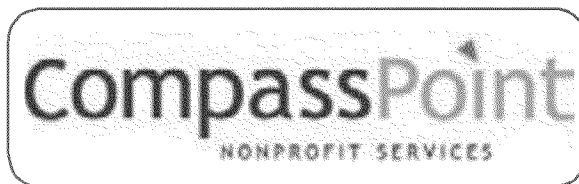


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sep 15

**Nutrients strategy meeting.** The goals of this meeting were to: Discuss organization and near-term activities (6 month timeframe) of nutrient strategy workgroup; Provide feedback on SF Bay draft nutrient strategy, including management questions, goals, and feedback and refinement of priority activities over a five-year planning period; Provide feedback on concept proposal to the RMP

sep 19



**Rainer Hoenicke** and **Kellean Giffin** attended the annual NonprofitDay workshop organized by CompassPoint. This annual workshop represents an opportunity to stay on top of new business practices, network, with fellow leaders, and discuss in depth specific subject areas with highly qualified panels.

sep 20 & 21

**Rainer Hoenicke** participated in the final State of the Estuary Conference Planning Committee meeting and attended the State of the Estuary Conference

sep 27

**Rmp technical Review Committee meeting.** The TRC discussed possibilities for reducing the Status and Trends component of the RMP, reviewed the proposal for nutrients work in 2012, and discussed possibilities for funds freed up from the discontinuation of a USGS SSC station. Updates were presented on dissolved oxygen profiles in the Bay, aquatic toxicity, the development of ambient sediment thresholds, as well as the 2011 Pulse and Annual Meeting.

Oct 18

**Rmp exposure and effects workgroup meeting**

Oct 20

**Rainer Hoenicke** attended a meeting of the Independent Science Board (ISB) of the Delta Stewardship Council and participated in an informational overview of the scientific programs in the Delta for which the ISB might have oversight.

Nov 3

**Rainer Hoenicke** attended the Interagency Ecological Program Coordinators' meeting to identify collaborative steps for more integrative aquatic ecosystem reporting across multiple stressors.

Nov 16

**Rainer Hoenicke** and **Thomas Jabusch** participated in a planning workshop with Central Valley Regional Board staff and NPDES dischargers on identifying and agreeing on steps to implement the Pilot Phase of the Delta Regional Monitoring Program.

Nov 19

**Rainer Hoenicke** attended the Implementation Committee meeting of the San Francisco Estuary Partnership and is organizing a meeting with Judy Kelly and her staff to identify future steps for periodic State of the Estuary Reports, building on the most recent report unveiled at the 2011 State of the Estuary Conference, that might eventually include the Delta.

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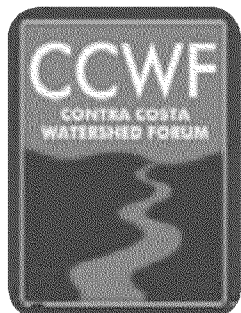
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Nov 22

**meredith williams and Cristina goss** attended the inaugural meeting of the California Water Quality Monitoring Council's Data Management Workgroup in Sacramento.

Nov 17

**Ruth askevo, Robin grossinger & bronwen stanford** presented the findings and implications of the Historical Ecology Study of East Contra Costa County at the Contra Costa County Creek and Watershed Symposium.

Nov 29

**Rmp steering Committee meeting**

DeC 7

**CeDeN team meeting at SFEI**

DeC 8

## valley oaks planetarium program at Calacademy

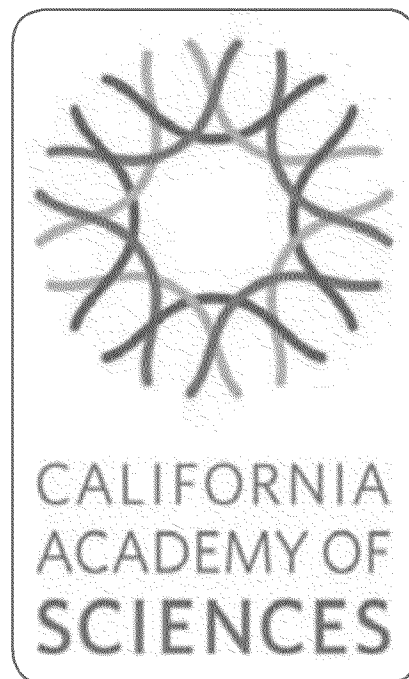
The California Academy of Sciences, SFEI, and NOAA have developed an original, live planetarium show about the history and future of California's iconic Valley oaks, including the concept of "Re-Oaking," which has emerged from recent SFEI studies. "Take an immersive tour from the canopy to the cosmos inside Morrison Planetarium, and explore the history and ecology of one of California's most iconic and threatened tree species, the Valley oak. Academy scientists, indigenous partners, and historical ecologists from the San Francisco Estuary Institute will reveal how Valley oaks and humans are intertwined in a relationship of disturbance and adaptation, with implications for the health and well-being of Bay Area communities. The first NOAA-funded Worldviews Network ([www.worldviews.net](http://www.worldviews.net)) event on the West Coast, this program will be simulcast to partner

institutions across the United States. A post-presentation dialogue about regional re-oaking strategies will be held with partners after the show." View press release: [http://www.calacademy.org/newsroom/releases/2011/valley\\_oaks.php](http://www.calacademy.org/newsroom/releases/2011/valley_oaks.php)

DeC 15

## Robin grossinger at California Coastal Conservancy

**Robin grossinger** will give a brown bag presentation on "Restoring Resilient Landscapes" at the California Coastal Conservancy, December 15. The talk will present what we are learning from recent Historical Ecology studies in Ventura County, the Delta, Napa Valley, East Contra Costa County, and Alameda Creek, and the implications for habitat restoration.



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Nov 14

**bioanalytical tools in water quality assessment**

date i. escher

the university of Queensland, National  
Research Centre for environmental  
toxicology (ntox), brisbane Qld 4108,  
australia

Chemical pollution is an increasing threat to our waterways, oceans, and drinking water sources. The impact of chemical pollution will be amplified by population growth and, possibly, by some of the effects of climate change. However, conventional chemical monitoring programs have been criticised on the basis that they cannot include the full range of chemical pollutants that could occur in water sources, and they do not account for the combined effects of mixtures of chemicals. Bioanalytical tools may therefore complement chemical analysis for cost-efficient water quality monitoring.

Bioanalytical tools are cell-based bioassays that target specific mechanisms of toxicity and give a measure of the toxicity of mixtures of known and unknown chemicals, such as pesticides, industrial chemicals, pharmaceuticals and their transformation products. Bioanalytical tools provide measures of the cumulative effects of chemicals that exhibit the same mode of toxic action, for which the selected bioassays are indicative plus they can give a measure of the cytotoxicity of all chemicals acting together in a water sample. Improved detection of the presence of chemicals in water enhances risk assessment and informs water management options, among them water recycling from impaired sources such as sewage, or stormwater harvesting and reuse.

In this presentation the design of a modular battery of bioassays will be presented and some illustrative examples from recent applications in South East Queensland, Australia.

The bioassays were selected from the three main categories of modes of action, namely non-specific, receptor-mediated specific and reactive toxicity. This bioanalytical test battery was used for monitoring organic micropollutants across an indirect potable reuse scheme testing sites across the complete water cycle from sewage to drinking water to assess the efficacy of different treatment barriers, including source control, wastewater treatment plant, microfiltration, reverse osmosis, advance oxidation, natural environment in a reservoir and drinking water treatment plant.

DeC 13

**brownbag: uC Fisheries sciences professor**

stephanie carlson

stephanie Carlson, assistant professor  
of Fisheries sciences at uC Berkeley  
in the Department of environmental  
science, policy, and management

Since joining the faculty in UC Berkeley's Department of Environmental Science, Policy, and Management in July 2008, Stephanie Carlson has been working to develop an active research program centered on the ecology and conservation of California's inland fishes. This has involved initiating several new field research projects in and around the Bay Area. Here she plans to give an overview of recent efforts, including preliminary results from field studies of native fish ecology in intermittent streams and intermittent estuaries, landscape influences on the distribution of native fishes, as well as results from analyses of long-term datasets on fish dynamics. A common theme emerging from this body of research is the importance of maintaining a diversity of aquatic habitats, even seasonally-available ones, as a fish conservation strategy in Mediterranean climate California.

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**DeC 20****brownbag: peter williams,  
global Flood model**

Peter Williams, IBM's Chief Technology Officer for Big Green Innovations will visit SFEI to give a presentation on their Global Flood Model. The GFM is actually a linked set of models and data that aims to provide, for any location on earth: a set of tools for predicting the risk of floods and devising long-run mitigation strategies such as land use changes and infrastructure improvements; as well as forecasting the timing, location and severity of specific flood events and managing emergency responses and post flood recovery.

The beneficiaries of the GFM will be: the public, seeking to preserve personal safety and property; city, state and local governments looking to safeguard communities and economic activity, and improve resilience; NGOs seeking to respond proactively to flood events; the insurance sector looking to understand and price flood risk; and large corporations looking to protect global operations and supply chains.

GFM will be managed and developed by a non-profit/public-private foundation created for the purpose. Its business model will be analogous to that for open-sourced software such as Apache or Linux: the core specifications and a "reference version" of the GFM will be open-sourced, and licensed free for non-profit usage, while for-profit users such as software companies, risk management consultancies and the like will pay an annual license fee. In so doing they will contribute to the upkeep and maintenance of the GFM over time.

GFM is being created by IBM, Willis Reinsurance, Esri, Deltares and the UK Met Office, who are committing substantial pro-bono resources to the initiative. Our first task will be to create a demonstrator, which will be available early in 2012.

In addition to the brown bag, we can arrange for additional conversations with Peter

**Jan 2012****Report on PCBs in Caulk**

The objectives of the report were to (1) estimate the PCB mass associated with caulk in currently standing buildings constructed during the era of PCB use in the San Francisco Bay study area, (2) estimate the PCB mass released to urban runoff during the renovation and demolition of these buildings, and (3) compare this estimated PCB mass released to stormwater to other PCB sources in the Bay Area. The report will be available on the SFEI website by January 2012. Citation below

Klosterhaus, S., Yee D., Kass, J., Wong, A., McKee L. 2011. PCBs in Caulk Project: Estimated Stock in Currently Standing Buildings in a San Francisco Bay Study Area and Releases to Stormwater during Renovation and Demolition. SFEI Contribution 651. San Francisco Estuary Institute, Richmond, CA.

**Feb 10, 2012****Robin grossinger  
presenting at BAWN**

Robin Grossinger will be presenting a talk at the annual meeting of the Bay Area Watershed Network (BAWN). The title of the talk is "Resilient Landscapes: Lessons from History". It will focus on what the historical ecology team has learned from extensive work around the Bay Area. This event is being hosted at Oakland City Hall. Note that it was re-scheduled from its original date in late February.

visit  
[www.sfei.org](http://www.sfei.org)  
for more info  
on these and other  
events



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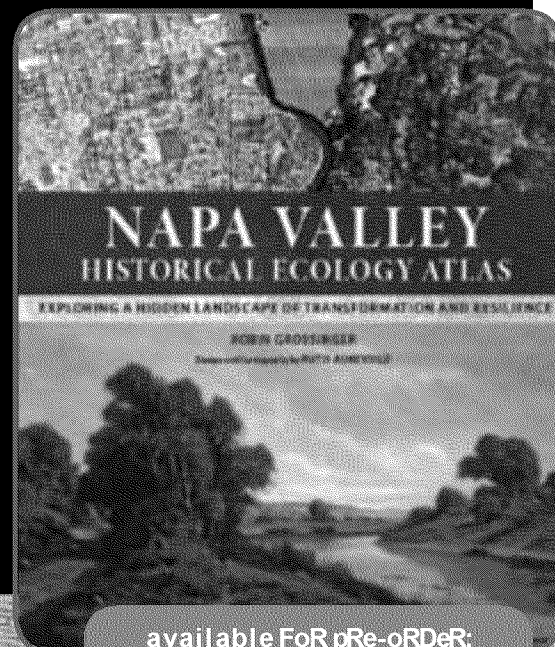
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Oct 14

**Napa Valley Historical Ecology Atlas:  
exploring a Hidden Landscape  
of transformation and Resilience**By **Robin Grossinger**  
with design and cartography by **Ruth AskevoId**Contributors: **Julie Baglerin Beller**, **Elise Brewster**, **Shari Gardner**, **sarah pearce**,  
**Jake Ruygt**, **micha salomon**, **bronwen stanford**,  
**Chuck Stripler**, and **a lison whipple****san Francisco estuary institute**

University of California Press, 2012



available FoR pRe-oRDeR:

<http://www.ucpress.edu/book.php?isbn=9780520269101>

"Welcome to the ecodetectives, the landscape archeologists, here to show us what was once in one particular valley and how places in general change and how historical maps and photographs can set your imagination on fire and tell you where you are more deeply than anything else. Every time I visit the Estuary Institute, Robin and cartographer Ruth are there presiding over tables layered thick with big reproductions of old maps and eager to show more maps on their computers: visiting them at work is time travel, cartographic chataqua, art exhibition, and ecological epiphany, and it's wonderful all that is finally packed into a book, and a beautiful book at that."

— **Rebecca soInit**author of *Infinite City: A San Francisco Atlas*

"Elk, grizzly, salmon, and Napa? Robin Grossinger and colleagues from the San Francisco Estuary Institute are the premier poet-scientists of the California landscape. Here they have created a beautiful, thoughtful, transformative look at the original ecology of the Napa Valley. If you are interested in sustainability, terroir, or the future of California, I would highly recommend this book."

— **eric w. sanderson**, Senior Conservation Ecologist at the Wildlife Conservation Society and author of *Mannahatta: A Natural History of New York*.

"This wonderful atlas is like none other. It takes you on a trip back through time and space, peeling away layer after layer of Napa Valley history. It gets under the skin of this enchanting place and then under yours. Once you learn to read the signposts of the past, you'll never look at the landscape of Napa – or anyplace else – the same way again. Grossinger and AskevoId elevate local geography to a new plane of scientific precision, historical reconstruction, and elegant imagery. They even sketch a set of tours for revisiting Napa country on your own and practical lessons on how this precious landscape can be better managed in the future by keeping an eye on the past."

— **Richard walker**, Professor of Geography, University of California, Berkeley, and author of *The Country in the City: The Greening of the San Francisco Bay Area*

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For comments or corrections, please email Design and Visual Communications,  
([lindaw@sfei.org](mailto:lindaw@sfei.org) and [joannec@sfei.org](mailto:joannec@sfei.org)).

**Attachment 3**

**Exposure Reduction Mid-Project Check-In Meeting**

November 22, 2011

**Summary and Action Items**

In Attendance: Ian Walker (CDPH), Tivo Rojas (CDPH), Luisa Valiela (EPA), Alyce Ujihara (CDPH), Aida Negron (ASC), Janet O'Hara (Regional Board), Amy Chastain (BACWA), Naomi Feger (Regional Board), Rainer Hoenicke (SFEI), Jennifer Hunt (SFEI), Diane Griffin (GenOn Energy), Geoff Brousseau (BASMAA)

Meeting Goal: Mid-Project review and check-in, next steps. Driver is the Hg TMDL and watershed permit which requires all municipal and industrial dischargers to do a fish consumption risk reduction project. The Bay Area Stormwater Management Agencies Association (BASMAA) has similar conditions in their Regional Municipal Permit. All of these parties, either directly or through an EPA grant, in the case of BASMAA, are funding the project.

**Summary of DPH Role:**

The California Department of Public Health has been funded to design and implement a risk reduction project in order to reduce contaminant exposure from the consumption of sportfish from San Francisco Bay. The project has coincided with the release of a final San Francisco Bay sportfish consumption advisory from OEHHA. The project has five main tasks. Below is a summary of work completed to date:

- Development of a Needs Assessment: DPH has assessed stakeholder needs for outreach and education surrounding consumption of contaminated fish from the Bay. DPH has met with community groups, counties, parks departments, and fishing groups. Input from these groups has been used to structure the project.
- Develop a Stakeholder Advisory Group (SAG): A stakeholder advisory group was coordinated to assist the project. The needs assessment was presented to the SAG. The SAG has met four times with the next meeting coming up in December. Approximately twenty participants have participated at each meeting. DPH would still like to reach out to other groups. Two more meetings planned in 2012.

- Risk communication framework: one page description completed in Spring 2011.
- Design and Implement a Grant Program to Community Groups: CDPH developed the RFP, held review panel, and disseminated 4 grants (there was a total of 9 applicants). Three groups were given grants of \$25,000 in one group a grant of \$20,000. DPH has held trainings with the groups and are working with each group to support their outreach/education efforts to their respective communities. DPH has done a lot to support the funded groups. DPH will do site visits to see group's activities and continue training group staff. DPH has also developed a kiosk brochure on the new SF Bay fish consumption advisory. There are 4 language translations planned potential for 4 more. Will be developing a new SF Bay sign that will mirror the advisory. Doing field testing right now. DPH will work with the counties to distribute and post. Sign will be made available to other groups for them to modify. A mid-term report from grantees is due in mid-December.
- Evaluation task: DPH will evaluate the SAG via surveys and will also evaluate the funded groups. DPH has also provided groups with some training on how to evaluate their project's activities and outcomes. DPH will also add an evaluation piece to look at their capacity building efforts with community groups.
- Draft final report on the project due in August 2012.
  - Tivo Rojas asked what the critical questions are that can be answered in the report. A report outline will be sent out to the funders and the Regional Board for their review and comment. This will ensure that the report encompasses the Regional Board's needs.
- Next Steps
  - There was acknowledgment on the amount and quality of work that has been completed to date. DPH has done an excellent job in creating messages and materials and working with community groups.
  - Permit renewal will happen at the end of 2012. BACWA is having discussions about what efforts it will recommend supporting.
  - BACWA/BASMAA can build on this foundation to improve their outreach/education efforts. The capacity building aspect of the project is

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providing a foundation for future enhanced outreach and education work unrelated to exposure reduction.

- How does this work tie into the next watershed permit? How do we keep engaged with the community groups?
  - Janet O'Hara: The outreach should continue via the next permit. There will need to be discussions on how to fund these groups.
  - How can we enhance the DPH bio-monitoring effort that may ultimately lead toward direct assessment of sport fish-eating populations?
  - What about the institutional structure going forward? The RMP is a good conduit but more technical in nature. Where will the leadership be?
    - Is there a regional health group that could spearhead the next phase of implementing the communication efforts (as opposed to a group focused on water quality)?
  - Does it seem that the permit requirements are being met by the project to date? There was a general consensus that permit requirements are being met, if not exceeded by this project.
  - Naomi Feger asked: What minimum level of funding would be required to fund DPH and community groups?
  - Rainer Hoenicke suggested that DPH should give a presentation to the California WQ Monitoring Council to get more exposure.
  - Explore other community group funding e.g. foundations etc. We did this as part of the FMP but didn't quite work.
  - Get more professional educators involved in the outreach.
  - Need to look at long-term goals of what the program wants to achieve and then design the program based on the goals.
  - DPH noted that there is a lag time between funding and project implementation and that it would be great to limit this gap and make funding available to community groups to be able to work in prime angling months (in the summer).
  - Post meeting conversation between Amy Chastain, Janet O'Hara, and Jen Hunt: there was a discussion about the final report and who would be the primary author. Janet O'Hara noted that the project summary

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and evaluative report developed by DPH could also be submitted to the Regional Board and would meet the reporting requirements of the permit.

**Action Items:**

- ☐ Jen Hunt- Send progress reports out to all parties
- ☐ Rainer Hoenicke – DPH should give a presentation to the WQ Monitoring Council to get more exposure. Janet, Alyce will work with Rainer on this.
- ☐ Alyce Ujihara– Agreed to participate in a briefing to the SFEI-ASC Board of Directors on December 7. RH will work with her and Amy to develop a few slides and discussion points for the meeting

## **San Francisco Bay Exposure Reduction Project CDPH Deliverables to ASC**

### **Performance and Progress Reports**

- 6.2 CDPH Quarterly Report. CDPH shall report quarterly to ASC on the activities conducted during the previous quarter.
1. *Dec 10-Jan 11*
  2. *Feb 11-Apr 11*
  3. *May 11-Jul 11*
  4. *Aug 11-Oct 11*
- 6.3 Interim Program Progress Report I. CDPH shall prepare an interim program progress report for ASC by April 30, 2011, to include the deliverables from: (1) Task 1 and (2) Task 2 for meetings that have been convened by April 30, 2011, as described Exhibit A.
- 6.4 Interim Program Progress Report II. CDPH shall prepare a second interim program progress report for ASC by January 31, 2012 to include the deliverables from Task 3a, 3b, 3c, as described Exhibit A.
- 6.5 Final Program Progress and Evaluation Report. CDPH shall prepare and circulate to ASC a draft final program and progress report by August 31, 2012, and a final report by October 31, 2012. The final report shall include all of the deliverables described in Exhibit A.

### **Task 1 – Conduct Needs Assessments**

1. Needs assessment summary, including the list of participating organizations, a list of the questions asked, a summary of the responses, and findings and recommendations. (April 30, 2011) *DONE 1/31/11*

**Task 2 – Create and Convene Stakeholder Advisory Group (SAG)**

1. A brief description of the SAG that includes the SAG's mission, a needs statement, background, SAG membership, and objectives/responsibilities. *DONE 4/30/11*
2. A list of organizations invited to participate on the SAG; the meeting dates, agendas, minutes, and attendees for each SAG meeting. CDPH plans to convene the first SAG by Jan. 31, 2011. Subsequent meetings will be scheduled every two to four months, depending on project needs.  
*Meeting held on 12/7/10, 2/14/11, 5/24/11, 9/8/11; next meeting 12/6/11*

**Task 3 – Conduct Risk Communication and Exposure Reduction Activities**

1. Risk communication and reduction framework (Task 3a). (Jan. 31, 2012). *DONE 4/11*
2. Summary of the criteria and process for soliciting and selecting risk communication and exposure reduction activities (Task 3b). (July 31, 2011) *DONE—RFP and 4/11 quarterly report*
3. A description of selected activities and the subcontractors that will be implementing them (Task 3b), including summaries of evaluation activities. (Oct. 31, 2011) *DONE—applications and MOAs*
4. Summary of trainings provided by CDPH to groups receiving subcontracts and others (Task 3b). (Jan. 31, 2012).  
*Training conducted to date:*  
*6/16/11 training for funded groups (fish contamination, evaluation)*  
*8/2/11 additional training for Greenaction (fish contamination, evaluation)*  
*9/14/11 training for 50 EBRPD staff on advisories and fish contamination*  
*11/9/11 training for 20 EBRPD staff on advisories and fish contamination*
5. Advisory brochure and kiosk flyer for San Francisco Bay in three languages (Task 3c). (Within 3 months of OEHHHA release of new advisory) *English and Spanish DONE; Chinese in progress*

6. A list of future risk communication and exposure reduction activities that could be implemented with additional funding (Task 3d). (Aug. 31, 2012)

#### **Task 4 – Program Evaluation and Coordination**

1. SAG evaluation from year 1. (Oct. 31, 2011) *DONE*
2. SAG evaluation from year 2. (Aug. 31, 2012)
3. Subcontractor program evaluation (Aug. 31, 2012)

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## **San Francisco Bay Exposure Reduction Project Grant Awards June 2011-May 2012**

The following four organizations have been awarded grants of \$20,000 to \$25,000 to conduct outreach and education in their communities to reduce exposure to harmful chemicals found in fish from San Francisco Bay. Primary funding for the grants has been provided by the Bay Area Clean Water Agencies, the Bay Area Stormwater Management Agencies Association, the Western States Petroleum Association, and the U.S. Environmental Protection Agency. This project is coordinated by the California Department of Public Health in collaboration with the Aquatic Science Center and the Office of Environmental Health Hazard Assessment.

### **APA Family Support Services, San Francisco, CA**

***Amor Santiago, Executive Director. (415) 616-9797, [amor@apafss.org](mailto:amor@apafss.org) Website: [www.apafss.org](http://www.apafss.org)***

Founded in 1987, APA's mission is to promote healthy Asian/Pacific Islander children and families by providing family support services, prevent child abuse and domestic violence, and advocate for culturally competent services for Asians and Pacific Islanders through education, community building and leadership development. Under this project, APA will collaborate with the Asian and Pacific Islander Family Resource Network, a collaborative of 22 agencies providing family support services to Asian and Pacific Islander immigrant families. The project will conduct a series of bilingual workshops for API families with high fish consumption, including pregnant women and children, and inform them about fish consumption advisories and encourage healthy fish consumption practices.

### **California Indian Environmental Alliance, Berkeley, CA**

***Sherri Norris, Executive Director. (510) 848-2043, [sherri@cieaweb.org](mailto:sherri@cieaweb.org) Website: [www.cieaweb.org](http://www.cieaweb.org)***

California Indian Environmental Alliance (CIEA) was founded in 2006. Their mission is to protect and restore indigenous peoples' culture, traditions, and environmental health. Through this project, CIEA will work with the Native American Health Center, Women, Infants, and Children Program (NAHC, WIC) to provide Native American families with an understanding of San Francisco Bay fish consumption advisories and how to avoid fish

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high in toxins. The project will also build capacity within NAHC, WIC to identify at-risk clients and to offer advice to reduce this risk. CIEA hopes this project will serve as a model and inspire other clinics to adopt similar programs.

**Greenaction for Health and Environmental Justice, San Francisco, CA**

***Bradley Angel, Executive Director. (415) 284-4666, [bradley@greenaction.org](mailto:bradley@greenaction.org), Marie Harrison, Project Coordinator, [marie@greenaction.org](mailto:marie@greenaction.org) Website: [www.greenaction.org](http://www.greenaction.org)***

Greenaction for Health and Environmental Justice was founded in 1997 by grassroots community leaders from the Bay Area and urban, rural and indigenous communities in the western U.S. Its mission is to mobilize community power to win victories that change government and corporate policies and practices to protect health and promote environmental justice. For the San Francisco Bay Fish Environmental Health and Justice Project, Greenaction will conduct education directly with people fishing in Southeast San Francisco. They will also engage in community outreach and education with residents of Bayview Hunters Point by giving presentations to community, parents, health groups, public housing tenants, and churches on fish contamination issues.

**KIDS for the BAY, Berkeley, CA**

***Mandi Billinge, Executive Director. (510) 547-4259 [mandi@kidsforthebay.org](mailto:mandi@kidsforthebay.org) Website: [www.kidsforthebay.org](http://www.kidsforthebay.org)***

KIDS for the BAY, founded in 1992, collaborates with teachers to inspire environmental consciousness in children and cultivate a love of learning. By means of their Safe Bay Food Consumption Project, elementary school students will become environmental health educators in their communities. They will teach their families and people fishing on Bay piers about how to reduce intake of toxins from Bay fish consumption. Also, six teachers will learn to teach the Safe Bay Food Consumption Curriculum to future classes of students. The program will become an integrated component of the target school's curriculum.

**For more information about the San Francisco Bay Fish Project or this grant program, visit: [www.sfei.org/sfbfp](http://www.sfei.org/sfbfp) or contact Aida Negrón at the Calif. Department of Public Health, (510) 620-6262, [aida.negron@cdph.ca.gov](mailto:aida.negron@cdph.ca.gov)**

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**Attachment 4**

**Staff Summary**

**To:** Board of Directors

**From:** Rainer Hoenicke, Executive Director

**Date:** 11/28/11

**Re:** Toward Board Unification: Implementation Steps and Upcoming Decision-points

---

**Background:**

On September 1 and 9, respectively, the ASC and SFEI Boards adopted a common Strategic Plan that contained three overarching priorities. One of them consists of developing a path toward integrating and simplifying the governance structure of both legal entities grounded in three key principles: non-advocacy, broad-based stakeholder governance, and rigorous science. This path would lead through a transition period, during which the total number of Board Members is proposed to be reduced to make the transition less unwieldy (both Boards combined currently have 19 seats, following the resignation of Jim McGrath, Steve Ritchie, and Fred Nichols).

**Staff Recommendation:**

The first steps toward Board unification, beginning on December 7, consist of:

- ☐ Establishment of a joint Governance Committee. Specific duties of the Governance Committee include: (a) assessing the Board's current composition and identifying missing qualities and characteristics; (b) drafting a recruitment plan and continuously cultivating new prospects; (c) developing job descriptions for Board Members; (d) orienting new Board Members and continuing to educate all members on their responsibilities; and (e) ensuring the Board regularly engages in self-assessment.

- Reducing the number of member seats through the transition stage from the current 19 to a maximum of 15 to steam-line decision-making.

We recommend that 2-3 members of the Governance Committee work with the executive team during the first quarter of 2012 to establish specific nominating criteria, based on the above principles, develop a slate of candidates with the commitment and skill sets suitable for strategic plan implementation and oversight, and subsequently recruit members for a unified Board.

The SFEI bylaws, as currently written, allocate Board seats to regulated entities participating in the San Francisco Bay Regional Monitoring Program for Water Quality, regulators, environmental interest groups, academic or agency scientists, and members at large. The six voting and one non-voting members on the ASC Board represent regulated entities and regulators, thereby overlapping in two of the five stakeholder categories allocated on the SFEI Board.

We recommend that the SFEI Board reduce its size during the transition by at least two members, bringing the number of “transition” members from both boards to a maximum number of 15.





## Attachment 5

### Staff Summary

**To:** Board of Directors  
**From:** Rainer Hoenicke, Executive Director  
**Date:** 11/28/11  
**Re:** Clarification of Strategic Goal 3

---

#### Background:

Following the approval of the Strategic Plan by the SFEI Board on September 9, the SFEI Board charged its Strategic Planning Committee to come up with slightly modified language for Goal 3. The SFEI Committee discussion and subsequent e-mail suggestions by Board Members resulted in more explicit language that clarifies the Goal and associated Objectives in terms of science communication and dialogue (a new term of “actionable science” has recently made it into the mainstream – see Science, Vol. 334, p. 1052-1053). The SFEI Board requested that to these slight wording changes be vetted with both Boards at the December 7 meeting.

#### Recommendation:

Consider the following clarifications to replace the originally adopted language with the following:

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**Goal 3: ~~Forum~~ Communication & Outreach**

Provide an independent, accessible discussion forum to communicate advances in scientific knowledge to a wide variety of stakeholders and decision-makers, and to effectively integrate science and policy.

**Objective 3.1 (new)**

Facilitate integration of science and policy by: (1) providing environmental information in support of stewardship and sustainable management of our aquatic resources, including synthesizing data, analyzing results and transforming findings into high quality products; and (2) utilizing effective design and multiple channels of communication to deliver these products to a wide range of audiences.

**Objective 3.2**

Provide inter-agency coordination services to align common goals and interests (i.e., assist with vertical and horizontal integration of science-based governmental decisions) and facilitate efforts to find solutions among a broad range of stakeholders.

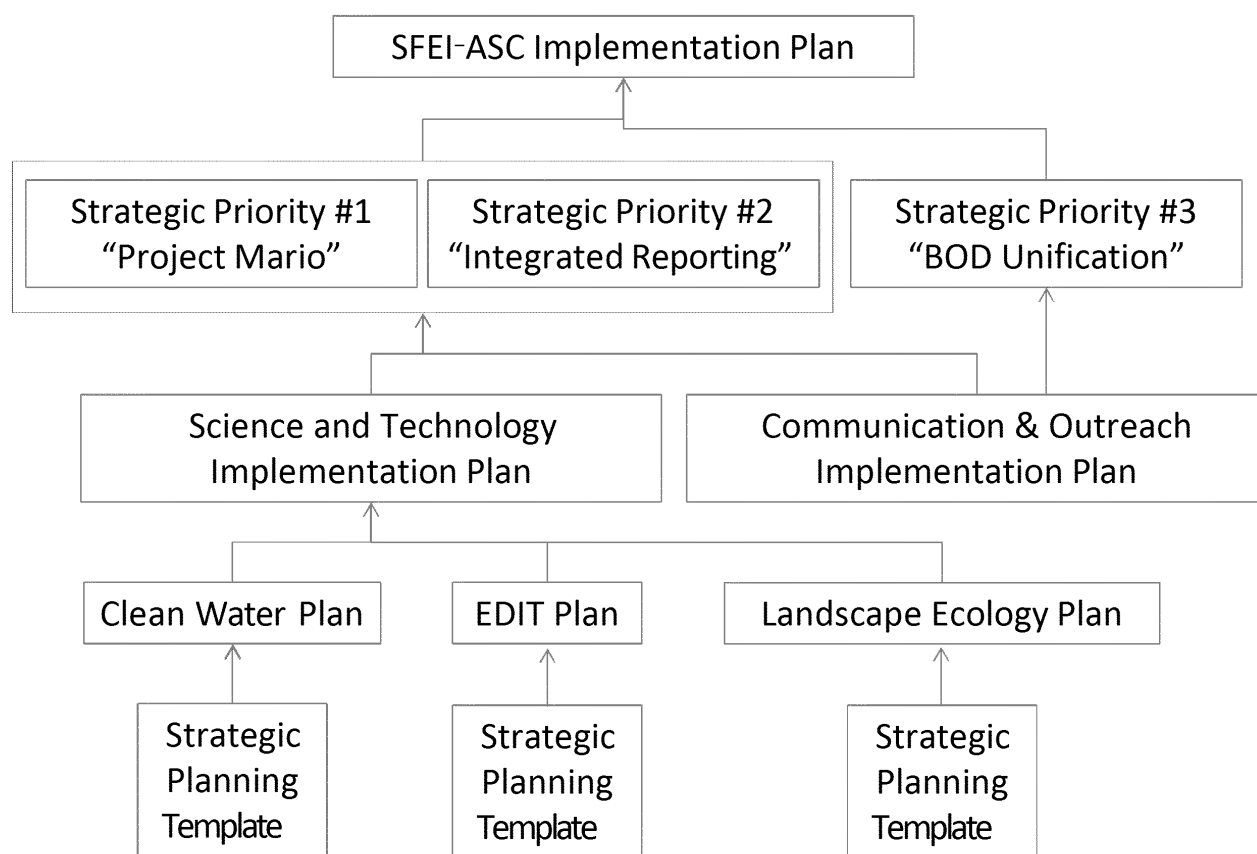
**Objective 3.3**

Enhance accessibility of data and information via technical support and outreach to data generators and users alike, in collaboration with existing Regional Data Centers in order to expand services to other regions of the state.

**Objective 3.4**

Provide public platforms where emerging and identified problems with the environmental health of aquatic ecosystems are discussed, goals are established, data needs are defined, data are evaluated, and goals are adjusted as necessary.

## Relation of Science & Technology Implementation Plan to Other Aspects of the SFEI-ASC Plan





## Attachment 6

### Staff Summary

**To:** Board of Directors

**From:** Rainer Hoenicke, Executive Director

**Date:** 11/28/11

**Re:** Strategic Plan Implementation and SMART Action Plan Development Process

---

#### **Background:**

On September 1 and 9, respectively, the ASC and SFEI Boards adopted a common Strategic Plan as a general roadmap for the next five to ten years. Beginning in 2010, the select members of the science and technology staff met during a series of facilitated meetings to identify their professional aspirations (aka “Dreamscape”) that are now brought into alignment with the Strategic Plan and translated into implementation steps that are specific, measurable, achievable, and timely (SMART). Staff developed a process and SMART Action Plan or implementation template that selected senior staff members are beginning to populate.

#### **Staff Recommendation:**

Provide feedback on implementation plan development process (see below).

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## Purposes of the Implementation Templates

The overarching purpose of the Templates is to provide the leaders of the Institute a process by which they can more effectively help each other achieve their career goals while also helping SFEI-ASC achieve its mission. The Templates are designed to accomplish the following specific objectives.

1. Identify the technical leadership within the Institute. The following concepts of staff functions and corresponding nomenclature have been suggested and will be applied until there is a consensus of the Science Forum participants and the Management Team to change it. The forthcoming Organizational Chart for the Institute will reflect these concepts.

	Management Team	Technical Staff Functional Concepts			
		Transactor	Project Manager	Principal Investigator	Producer
Some Characteristics	This consists of the Executive Director, Deputy Director, and Lead Scientist who collaboratively run the Institute with oversight by the BOD.	Leads a Focus Area; raises funds; helps guide and develop emergent products for the Institute as a whole; consults on projects; can also be a Principal Investigator	Partners with Transactors, Principal Investigators, and other Managers to administer projects; forecast staff hours, etc.	Leads projects; writes project reports and publications; works with managers to oversee Producers	Does projects as directed and supervised by the Principal Investigators and Project Managers

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2. Identify and define the different primary areas of work of the Institute. The following nomenclature has been suggested and will be applied until there is a consensus of the Science Forum participants and the Management Team to change it.

<b>Mission Statement</b>  (We may revise this give it a code name such as "resilient Landscapes," or Healthy Landscapes," or "Wise Water World").	<b>"Strategic Focus Areas"</b> (terms and the names can change)	<b>Transactors</b> (list can change)	<b>"Programs and Initiatives"</b> (things listed and what they're named can change)
	<b>"Technology"</b> (is this "Project Mario?" This needs a user-friendly and marketable name)	Meredith	EDIT
			Regional Data Center
			Desktop Watersheds
			??
	<b>"Clean Water"</b> (this is a user-friendly and marketable name for what is essentially environmental chemistry and toxicology)	Jay and David	Bay RMP
			Delta RMP
			Estuary Nutrients
			??
	<b>"Landscape Ecology"</b> (Is this "Resilient Landscapes?" This needs a user-friendly and marketable name)	Robin and Letitia	Historical Ecology
			Conservation Biology
			Cultural Landscapes
			??

3. Enable the Transactors (Focus Area Team Leaders) to identify and build Teams within the Institute that cut across the "Programs and Initiatives" as needed.
4. Translate the Dreamscape components into Strategic Actions (i.e., implementation actions) for the near term, mid-term, and long term that can be used as milestones or benchmarks to track the individual and collective progress of the Transactors and their Teams.
5. Integrate across the Dreamscapes of the Focus Areas to produce a single coherent Dreamscape for the Institute with clearly identified Key Components and Strategic Actions that in aggregate represent what the Institute must accomplish to meets its mission, consistent with goals and objectives contained in the new Strategic Plan.

6. Develop a shared understanding about existing funding sources and gaps in sources that will inform our funding model(s).
7. Develop a shared understanding about existing gaps in capacity within and among Focus Areas that will be used to prioritize new hires, and help inform any requests from the Board Governance Committee that might facilitate strategic recruitment of Board Members.

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**Draft Timeline for Developing Implementation Plan for Science and Technology (Project Mario and Scientific Synthesis)**

Major Action	Component Action	Nov Week				Dec Week				Jan Week					Feb Week				Mar Week			
		1	2	3	4	1	2	3	4	1	2	3	4	5	1	2	3	4	1	2	3	4
Design internal process	Identify S&T Focus Areas	DONE																				
	Identify leaders for each Focus Area	DONE																				
	Form S&T Focus Area Teams	DONE																				
Develop Focus Area plans	Allocate existing projects among S&T Focus Areas																					
	Identify SMART actions for each Focus Area																					
	Identify key linkages to government policies and programs																					
Integrate Focus Area plans into overall SFEI-ASC Science & Technology plan	Identify and prioritize common SMART actions																					
	identify gaps in capacity and outline a strategy to fill them																					
	Respond to Gov. Committee information request on BOD qualifications (as needed)																					
Combine S&T plan with Stakeholder Relations and Financial Management																						

**Attachment 7**

Action Item	Who?	Status	Date Completed
1. Provide summary report at the next Board meeting in December on the Exposure Reduction Report. It was requested that Dr. Hoenicke email a copy of the summary to the SFEI Board as well.	Dr. Hoenicke	Done	12/07/11
2. Report back to the Board about the status of SF Bay in the Marine Protected Areas Program.	Dr. Hoenicke	Done	12/07/11
3. Replace Amy Chastain with Bruce Wolfe on the Board composition roadmap. Amy is an alternate member.	Ms. Seto	Done	09/06/11
4. Correct a typographical error on the cover page of the Resolution to renew the Administrative Services Agreement with SFEI.	Ms. Griffin	Done	09/06/11
5. Dr. Hoenicke to meet with Mr. Polhemus and Ms. Whitney in Sacramento to discuss feedback on whitepapers.	Dr. Hoenicke	Postponed	
6. Ms. Seto to send a meeting doodle to schedule December meeting with both Boards.	Ms. Seto	Done	09/12/11

**Minutes of the Aquatic Science Center Board of Directors  
September 1, 2011**

**Members Present:**

David Williams, Bay Area Clean Water Agencies  
Pamela Creedon, Central Valley Regional Water Quality Control Board  
Bruce Wolfe, San Francisco Bay Regional Water Quality Control Board  
Kirsten Struve, Bay Area Clean Water Agencies  
Luisa Valiela (Alternate), U.S. Environmental Protection Agency, Region 9  
Laura Pagano, Bay Area Clean Water Agencies  
Darrin Polhemus (Alternate), State Water Resources Control Board  
Amy Chastain (Alternate), Bay Area Clean Water Agencies  
Tom Mumley (Alternate), San Francisco Bay Regional Water Quality Control Board

**Others Present:**

Rainer Hoenicke, San Francisco Estuary Institute  
Kelleen Griffin, San Francisco Estuary Institute  
Stephanie Seto, San Francisco Estuary Institute  
Josh Collins, San Francisco Estuary Institute  
Trish Mulvey, SFEI Board and CLEAN South Bay  
Marc Beyeler, Marc Beyeler Associates  
Page Nelson, Marc Beyeler Associates

**1. Call to Order**

Ms. Creedon, Board Vice-Chair, called the meeting to order at 10:15 a.m. Mr. Williams, Board Chair, entered the room at 11:00 a.m.

**2. Public Comments**

None

**3. Consent Items**

Mr. Polhemus made a motion to approve all consent items, including the agenda and June 2, 2011 meeting minutes. The motion was seconded by Mr. Wolfe and passed unanimously.

#### **4. Review of Action Items from June Workshop**

Dr. Hoenicke reviewed the action items from the June workshop.

#### **5. Information and Discussion Items – Executive Director’s Quarterly Report**

Dr. Hoenicke reviewed the quarterly report. There was a brief discussion regarding the move to 4911 Central Avenue in Richmond, news & notables, publications, presentations, and upcoming events. Dr. Hoenicke also gave an update on the Exposure Reduction Report.

##### **Action Items:**

- ☐ Provide summary report at the next Board meeting in December on the Exposure Reduction Report. It was requested that Dr. Hoenicke email a copy of the summary to the SFEI Board as well.
- ☐ Report back to the Board about the status of SF Bay in the Marine Protected Areas Program.

#### **6. Action Items**

##### **a) Approve Strategic Plan for 2012-2016**

Dr. Hoenicke reviewed the highlights and take-home messages from the joint ASC-SFEI strategic planning committees meetings (July 14 and August 24). Dr. Hoenicke presented the Joint Strategic Plan of the San Francisco Estuary Institute and the Aquatic Science Center for Board review and approval of a final V,M,G&O and all three Strategic Priorities (Project Mario, Integrated Reporting and Council of Advisors, and Investigation of Unification of the Boards). There was also a brief discussion regarding the potential Board composition by skillset and expertise. Ms. Creedon made a motion to follow the recommendation of the Joint Strategic Planning Committees and endorse the Strategic Plan. The motion was seconded by Mr. Wolfe and passed unanimously.

##### **b) Amend Bylaws to Reflect Re-location to 4911 Central Avenue, Richmond**

Ms. Creedon made a motion to approve the amended Bylaws to reflect re-location to 4911 Central Avenue, Richmond. The motion was seconded by Mr. Wolfe and passed unanimously.

##### **c) Adopt Resolution to Renew Administrative Services Agreement with SFEI**

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Ms. Creedon made a motion to adopt the Resolution to renew the Administrative Services Agreement with SFEI with corrections. The motion was seconded by Ms. Struve and passed unanimously.

**d) Approve Program Plan Update**

There was an amendment made to Program Plan item #9 to increase the range from *\$250,000-\$450,000 to \$250,000-\$1M*. Mr. Wolfe made a motion to approve the Program Plan update. The motion was seconded by Ms. Creedon and passed unanimously.

**e) Adopt Resolution on Commercial Liability Insurance**

Ms. Creedon made a motion to adopt the Resolution on commercial liability insurance. The motion was seconded by Mr. Polhemus and passed unanimously.

**Action Items:**

- ☐ Replace Amy Chastain with Bruce Wolfe on the Board composition roadmap. Amy is an alternate member.
- ☐ Correct a typographical error on the cover page of the Resolution to renew the Administrative Services Agreement with SFEI.

**7. Future Meeting Agenda Items**

- ☐ Update on the Exposure Reduction Project- progress report and next steps.
- ☐ Update on Marine Life Protection Act and status on San Francisco Bay Options Report under the Marine Protected Areas program.
- ☐ Update on implementation plan for strategic priorities.
- ☐ Summary of the research that has been done from now until the next meeting in December.

**Action Items:**

- ☐ Dr. Hoenicke to meet with Mr. Polhemus and Ms. Whitney in Sacramento to discuss feedback on whitepapers.
- ☐ Ms. Seto to send a meeting doodle to schedule December meeting with both Boards.

**8. Adjournment**

The meeting was adjourned at 1:00 p.m.

Respectfully submitted,

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Pamela Creedon, Board Secretary

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Date





# Program Plan 2012



AQUATIC SCIENCE CENTER  
and the SAN FRANCISCO  
ESTUARY INSTITUTE

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Information & Technology
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### Aquatic Science Center

- A. Clean Water
- B. Landscape Ecology
- C. Environmental Data  
Information & Technology

## Introduction

The 2012 Program Plan reflects our current approach to re-designing our organizational structure and our desire to integrate our existing and anticipated projects across former program boundaries and align them with our new strategic plan. We have grouped projects into three major science and technology Focus Areas. These three large Focus Areas are:

- Clean Water
- Landscape Ecology
- Environmental Data, Information, and Technology (EDIT)

We are developing descriptions of these Focus Areas, and we are identifying their conceptual and operational inter-relationships. Each area has recognized technical leaders at SFEI-ASC.

Clean Water includes projects to support local, state, and federal policies for protecting and restoring the chemical integrity of sediment and water, or that focus on the effects of water and sediment chemistry on biota. This includes all elements of the Master Plan for the Regional Monitoring Program for Water Quality (RMP), plus projects that are not funded by the RMP, entirely or in part, but that focus on environmental chemistry, exposure of biota, and effects. Definitive outputs include the Pulse of the Bay and Delta and the regional approach to mercury monitoring in wetlands.

Landscape Ecology includes projects that support local, state, and federal policies for the protection and restoration of plant and wildlife species and communities.

This includes all elements of the Historical Ecology Program plus the nascent programs in Conservation Biology and Cultural Landscapes. Definitive outputs include the Napa Historical Ecology Atlas, the California Rapid Assessment Method for wetlands, streams, and riparian areas (CRAM), and the statewide Wetland and Riparian Area Monitoring Plan (WRAMP) of the California Water Quality Monitoring Council.

EDIT provides the technology for assembling, managing, visualizing, accessing, and interpreting environmental monitoring and research data. This includes Geographic Information System (GIS), and data management across the other Focus Areas. Definitive outputs include My Water Quality Portals, the RMP Web Query Tool, the Bay Area Aquatic Resource Inventory, Wetland Tracker, and Trash Tracker.

Within each Focus Area, projects funded through SFEI are clearly distinguished from those that are funded through the Aquatic Science Center. Since SFEI is the administrator for the Aquatic Science Center, and the SFEI Board is the fiduciary steward of resources received by both entities, the 2012 Program Plan and Budget (with quarterly updates) have now become the appropriate tracking, management, and oversight tools for both Boards. In addition, we have identified projects that will need to be funded by internal resources.

As the Operations Team completes its implementation plan for financial and people management, as well as strengthening and expanding stakeholder relations during the first half of 2012, subsequent Program Plan Updates will reflect allocation of people and financial resources dedicated to these activities.

# San Francisco Estuary Institute

## A. Clean Water

### SWAMP Phase II (Bioaccumulation Coast year 2)

PROJECT CODE

**1066.6**

START DATE

**2/15/10**

ANTICIPATED COMPLETION

**3/31/12**

TOTAL FUNDING

**\$129,833**

FUNDING FOR SFEI LABOR

**\$114,833**

FUNDING FOR 2012 SFEI LABOR

**\$39,819**

STATUS

**Active**

DIRECT CLIENT

**SjSURF**

PRIMARY CLIENT

**SWRCB**

LEAD SCIENTIST

**Jay Davis**

PROJECT MANAGER

**Jennifer Hunt**

COLLABORATORS

**State and Regional Boards, CDE**

#### Project Description

The Surface Water Ambient Monitoring Program (SWAMP) Roundtable has formed a subcommittee, the Bioaccumulation Oversight Group (BOG) that develops plans for and guides implementation of SWAMP bioaccumulation monitoring.

The BOG has also convened a Bioaccumulation Peer Review Panel that is providing evaluation and peer review of the bioaccumulation program. SFEI coordinates the BOG and is the technical lead for SWAMP bioaccumulation monitoring. The BOG is evaluating bioaccumulation impacts on the fishing beneficial use in all California water bodies. Sampling of lakes and reservoirs was conducted in the first two years (2007 and 2008). In 2009 and 2010, the California coast, including bays and estuaries, were being sampled. Rivers and streams will be sampled in 2011. The second year of coastal sampling focused on the north coast and central coast.

#### Work Products

A report on the findings of the two-year survey of Contaminants in Fish from California Coastal Waters, along with a fact sheet, press release, and posting of the data on the California Water Quality Monitoring Council's web portal.

#### Plans for 2012

Activities in 2011 under Project 1066.6 will relate to data management and development of a draft report on the findings of the second year of the survey of Contaminants in Fish from California Coastal Waters.

### SWAMP Bioaccumulation Rivers and Streams

PROJECT CODE

**1066.9**

START DATE

**4/1/11**

ANTICIPATED COMPLETION

**12/31/12**

TOTAL FUNDING

**\$154,145**

FUNDING FOR SFEI LABOR

**\$137,000**

FUNDING FOR 2012 SFEI LABOR

**\$71,380**

STATUS

**Active**

DIRECT CLIENT

**SjSURF**

PRIMARY CLIENT

**SWRCB**

LEAD SCIENTIST

**Jay Davis**

PROJECT MANAGER

**Jennifer Hunt**

COLLABORATORS

**State and Regional Boards, CDE**

## Project Description

The Surface Water Ambient Monitoring Program (SWAMP) Roundtable has formed a subcommittee, the Bioaccumulation Oversight Group (BOG) that develops plans for and guides implementation of SWAMP bioaccumulation monitoring. The BOG has also convened a Bioaccumulation Peer Review Panel that is providing evaluation and peer review of the bioaccumulation program. SFEI coordinates the BOG and is the technical lead for SWAMP bioaccumulation monitoring. The BOG is evaluating bioaccumulation impacts on the fishing beneficial use in all California water bodies. Sampling of lakes and reservoirs was conducted in the first two years (2007 and 2008). In 2009 and 2010, the California coast, including bays and estuaries, were being sampled. Rivers and streams will be sampled in 2011. The second year of coastal sampling focused on the north coast and central coast.

## Work Products

A report on the findings of the survey of Contaminants in Fish from California Rivers and Streams, along with a fact sheet, press release, and posting of the data on the California Water Quality Monitoring Council's web portal.

## Plans for 2012

Activities in 2011 under this Project will relate to BOG coordination, sampling design, oversight of sampling.

# National Coastal Condition Assessment

PROJECT CODE

**1066.7**

START DATE

**11/20/11**

ANTICIPATED COMPLETION

**5/31/12**

TOTAL FUNDING

**\$75,000 (\$25,000 add-on pending)**

FUNDING FOR SFEI LABOR

**\$75,000**

FUNDING FOR 2012 SFEI LABOR

**\$60,090**

STATUS

**Active**

DIRECT CLIENT

**SjSURF**

PRIMARY CLIENT

**SWRCB**

LEAD SCIENTIST

**Dave Senn, Jay Davis**

PROJECT MANAGER

**Meg Sedlak**

COLLABORATORS

**USEPA, SCCWRP**

## Project Description

The USEPA National Coastal Assessment is a nationwide effort to answer broad-scale questions on environmental conditions. One of the largest components of the program is the coastal effort, in which EPA has partnered with coastal States to develop a nationally integrated monitoring network. The EPA uses the data from the national monitoring network to prepare a periodic report to congress called the National Coastal Condition Report series. Collaborating with the EPA on these assessments not only ensures that California is accurately represented, but also allows for a comparison of San Francisco Bay and other California estuaries to the rest of the

state and nation. Datasets from the San Francisco Bay Regional Monitoring Program (RMP) and the 2010 NCCA will be combined and evaluated to assess the current condition of San Francisco Bay, based on the parameters measured in the NCCA program. This combination of datasets is a collaborative effort between the two programs to better utilize program resources and data interpretive power. NCCA data from other California estuaries will also be evaluated. Data assessments will be in concert with those performed on the national dataset for NCCA, with exploratory enhancements utilizing the long term data generated by SWAMP, the RMP, and other California data. A draft report will be developed in cooperation with EPA staff. After review from EPA, a final collaborative report will be completed.

#### Work Products

Draft and final reports on Condition of California estuaries.

#### Plans for 2012

Complete draft and final reports on Condition of California estuaries.

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## Update to LTMS Science Framework Document

#### PROJECT CODE

**1089**

#### START DATE

**8/16/10**

#### ANTICIPATED COMPLETION

**9/30/12**

#### TOTAL FUNDING

**\$42,672**

#### FUNDING FOR SFEI LABOR

**\$42,482**

#### FUNDING FOR 2012 SFEI LABOR

**\$14,813**

#### STATUS

**Active**

#### DIRECT CLIENT

**USACE**

#### PRIMARY CLIENT

**Same**

#### LEAD SCIENTIST

**Thomas Jabusch**

#### PROJECT MANAGER

**Sarah Lowe**

#### Project Description

This project is updating the LTMS Science Framework Document of 2004 to include additional species that California and the federal government list as species of concern for environmental work windows for dredging in the San Francisco Bay area under LTMS jurisdiction. The framework, which contains technical and management underpinnings for managing species of concern, is the guiding document for the LTMS to pursue pertinent technical studies. The update is based in part upon literature and data searches, interviews with resource agency individuals, and stakeholder input. The species that will be added to the updated document include the California least tern, California clapper rail, salt marsh harvest mouse, and Dungeness crab. In addition, because the green sturgeon and longfin smelt are now federally and state-listed threatened species, respectively, these species will also be included in the framework supplement.

#### Work Products

Update to LTMS Science Framework Document.

#### Plans for 2012

The LTMS Science Framework Update will be completed in 2012 and will complete this project.

#### Project Status

The literature, data searches, and interviews with resource agency individuals were completed in 2011.

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## Estuary 2100 & Newcomb Model Block

PRoJECT CoDE

**5065**

START DATE

**3/1/09**

ANTICIPATED CoMPLETIoN

**12/31/13**

ToTAL FUNDINg

**\$268,750**

FUNDINg FoR SFEI LABoR

**\$267,760**

FUNDINg FoR 2012 SFEI LABoR

**\$37,400**

STATUS

**Active**

DIRECT CLIENT

**ABAg**

PRIMARy CLIENT

**EPA**

LEAD SCIENTIST

**Meredith Williams**

PRoJECT MANAgER

**Kristen Cayce**

CoLLABoRAToRS

**13 project partners: Bahia Restoration Project (Marin Audubon Society), Yosemite Slough Restoration (California State Parks Foundation), Littorina Eradication (CRAB), Stream Management Program for Landowners (Urban Creeks Council), Shoreline Habitat Restoration (Save the Bay), Invasive Spartina Project, Wetland Adaptation Techniques in the Lower Corte Madera Creek Watershed (BCDC), Habitat Evolution Monitoring and Pond A8 Mercury Monitoring (South Bay Salt Ponds), Stream Channel Restoration Design Curves (Waterways Restoration Institute), green Solutions (Community Conservancy International), Bayview Model Block (City**

**and County of San Francisco/SFPUC), Santa Clara County Senador Mines (Santa Clara County)**

### Project Description

In November 2009, the Estuary Partnership was awarded a \$4.8 million grant from the U.S. Environmental Protection Agency's San Francisco Water Quality Improvement Fund to improve the health of the Estuary. The Institute has been providing technical and monitoring support to project partners, by reviewing project design, and developing monitoring protocols and Quality Assurance Project Plans (QAPPs), managing data, and preparing technical reports. The Institute was funded to promote local stewardship of watershed-scale maps to assist TMDL implementation. Lastly, we will adapt and refine methodologies from the USGS to characterize anticipated shoreline changes due to project results and climate change in the North Bay.

### Work Products

SFEI has reviewed, written and or expedited 13 QAPPs.

SFEI wrote and released a Transitional Ecotone Vegetation protocol for Estuary 2100's wetlands restoration partners. An online data management tool for this protocol was released in 2011 and is in use by Save the Bay. [ted.sfei.org](http://ted.sfei.org)

A Landscape change analysis completed to quantify changes in wetland extent over time focusing on Napa Valley and Coyote Creek Watershed.

### Plans for 2012

QAPP support may be needed for Senador Mine post-project monitoring and for the Stonybrook project.

Newcomb model block construction is underway with new LID features to reduce stormwater runoff. Post-construction monitoring will be completed to determine the impact of these changes on the hydrograph of the catchment area.

Data collected thus far using the Transitional Ecotone Vegetation Protocol will be analyzed and the protocol and results will be presented to a technical advisory team for review and possible modification.

## Recent Findings and Publications

N/A

## Project Status

Newcomb model block construction is underway with new LID features to reduce stormwater runoff.

Both the Stonybrook and Senador Mine creek restoration projects have experienced multiple delays, thereby delaying SFEI's technical support.

## El Cerrito green Streets Pilot Project

### PRoJECT CoDE

**5068**

### START DATE

**10/6/09**

### ANTICIPATED CoMPLETIoN

**6/30/12**

### ToTAL FUNDINg

**\$102,429**

### FUNDINg FoR SFEI LABoR

**\$47,548**

### FUNDINg FoR 2012 SFEI LABoR

**\$30,350**

### STATUS

**Active**

### DIRECT CLIENT

**ABAg**

### PRIMARy CLIENT

**ARRA**

### LEAD SCIENTIST

**Lester McKee**

### PRoJECT MANAgER

**Alicia gilbreath**

### CoLLABoRAToRS

**AXyS, Brooks Rand, RiverMetrics, EBMUD, Delta Environmental Laboratories**

## Project Description

The El Cerrito Green Streets pilot project consists of installing two stormwater treatment rain gardens, monitoring rain garden performance, conducting outreach about the rain gardens and stormwater pollution prevention outreach, and conducting technology transfer. The project retrofits a dense urban corridor with green stormwater infrastructure that detains and treats urban runoff to remove pesticides, PCBs, mercury, and copper as specified in San Francisco Bay Basin Water Quality Control Plan TMDLs and SSOs. The project will construct the rain gardens into existing sidewalks and on-street parking areas to treat stormwater from 1.23 acres of impervious surface (San Pablo Avenue, adjacent commercial properties, and adjacent residential streets), thus reducing pollutant loads. After construction, a monitoring plan will be designed and implemented to quantify the performance of one of the rain gardens, communicating results via technical report and other communication venues, such as newsletters and web sites. Outreach to the public about the rain gardens and stormwater pollution prevention will occur through interpretive signs, information on SFEP's and the City's websites, a Green Streets Tour, a flier for adjacent businesses, and a media release.

## Work Products

Final technical report

## Plans for 2012

Pollutants of concern monitoring will begin in Water Year 2012. Water samples will be collected at both the inlet and the outlet of the rain garden for 4 storm events, including 1st flush. Water samples will be sent to contracted analytical laboratories. Data will be entered into the regional SWAMP database and a final technical report will be completed in calendar year 2012.

## Recent Findings and Publications

None to-date

## Project Status

Ongoing



## Estuary 2100 Phase 2 (Tree Wells)

PRoJECT CoDE

**5069**

START DATE

**3/10/10**

ANTICIPATED CoMPLETIoN

**1/1/14**

ToTAL FUNDINg

**\$370,000**

FUNDINg FoR SFEI LABoR

**\$370,000**

FUNDINg FoR 2012 SFEI LABoR

**\$147,300**

STATUS

**Active**

DIRECT CLIENT

**ABAg**

PRIMARy CLIENT

**EPA**

LEAD SCIENTIST

**josh Collins**

PRoJECT MANAgER

**Meredith Williams / Kristen Cayce**

CoLLABoRAToRS

**5 project partners: Napa/Sonoma TMDL support North Bay Watershed Association, yosemite Slough Restoration (California State Parks Foundation), North Richmond Dry Weather Flow Treatment Bypass (Contra Costa County Flood Control District), Living Shoreline subtidal restoration at Corte Madera Creek and Eden Landing (CA Coastal Conservancy, Marin open Space District, San Francisco State University), LID Tree Well Filters (City of Fremont).**

**In addition, The Watershed Program will provide monitoring support of the Richmond stormwater diversion.**

### Project Description

In November 2009, the Estuary Partnership was awarded a \$3.3 million grant from the U.S. Environmental Protection Agency's San Francisco Water Quality Improvement Fund to improve the health of the Estuary. The Institute is again providing technical and monitoring support to project partners, by reviewing project design, and developing monitoring protocols and Quality Assurance Project Plans (QAPPs), managing data, and preparing technical reports. In addition, The Watershed Program will provide monitoring support of the Richmond stormwater diversion. The Institute was funded to promote local stewardship of the Bay Area Aquatic Resources Inventory (BAARI) maps to assist TMDL implementation. Lastly, we will adapt and refine methodologies from the USGS to characterize anticipated shoreline changes due to changing conditions in the North Bay – restoration projects, climate change, changes in sediment delivery.

### Work Products

- Documentation of local map stewardship protocols
- North Richmond Pumping Station report
- Publication of protocols for shoreline change characterization as well as final report.

### Plans for 2012

- Map stewardship protocols and methodology to transfer map data to partners. This will be coordinated with our WRMP and State Wetland and Riparian Area Protection Policy projects.
- Develop partnerships for shoreline change to begin densification of existing shoreline characterization work.
- Complete North Richmond Pumping Station QAPP and dry and wet season sampling plans.
- Develop outreach materials and monitoring support for North Bay TMDL implementation partners

### Recent Findings and Publications

N/A

## Project Status

Local stewardship partners have been identified – Santa Clara Valley Water District and Marin County DPW. Data exchange is underway.

Shoreline change workplan has been developed and outreach has begun.

We are currently working with EPA to understand their priorities for TMDL implementation support.

## IRWMP Prop 84 green Infrastructure

### PROJECT CODE

**50xx**

### START DATE

**4/1/12**

### ANTICIPATED COMPLETION

**3/31/15**

### TOTAL FUNDING

**\$2,082,026**

### FUNDING FOR SFEI LABOR

**\$656,550**

### FUNDING FOR 2012 SFEI LABOR

**\$164,138**

### STATUS

**In Negotiation**

### DIRECT CLIENT

**DWR**

### PRIMARY CLIENT

**DWR**

### LEAD SCIENTIST

**David Senn**

### PROJECT MANAGER

**TBD**

### COLLABORATORS

**San Francisco Estuary Partnership (SFEP)  
Cities of San Pablo, Richmond, El Cerrito,  
Albany, Berkeley, Emeryville, Oakland;  
Caltrans; StopWaste.org/Bay-Friendly**

**Landscaping City of Campbell, Napa County  
Cities of American Canyon, Napa, St. Helena,  
and Calistoga, the Town of Yountville; Napa  
County Resource Conservation District; Napa  
County Agricultural Commissioner; Napa  
County Farm Bureau; Napa Valley school  
districts; Napa Valley grape growers; Master  
gardeners; Napa Valley California Native  
Plant Society; and Friends of the Napa River**

## Project Description

The Regional Green Infrastructure Capacity Building Program will be undertaken by a team of partners under the leadership of SFEP. The program will implement three demonstration projects in the northern, southern and eastern sub-regions of the San Francisco Bay Area IRWM region. The projects included are completion of the San Pablo Spine along seven East Bay cities from Emeryville to San Pablo, “Green Street” Improvements to Hacienda Avenue in Campbell, and Napa Valley Rainwater Harvesting. The program will analyze the performance of these projects to determine actual benefits of water conservation and/or stormwater quality benefits. Results of the pilot evaluations will then be used to inform and expand development of green infrastructure projects to all parts of the region. The future goal of the project is to convert non-permeable areas to permeable or landscaped areas; Decrease maintenance, material and energy costs; Treat surface runoff and allow for percolation into the ground aquifer

SFEI will be responsible for project performance analysis for each project. SFEI will use appropriate, standardized monitoring and assessment, results analysis and geospatial tools to inform future green infrastructure management decisions.

San Francisco Estuary Institute (SFEI) will be the lead for the water quality evaluation of this project.

Specifically, SFEI will:

- Develop a monitoring plan to cover representative sites along the San Pablo Avenue Stormwater Spine
- Assist Napa and Campbell in developing

monitoring plans, consistent with monitoring along the San Pablo Avenue Stormwater Spine and other Green Infrastructure monitoring efforts around the region

- Collect and analyze samples from sites on the Stormwater Spine and Campbell
- Napa County will collect and analyze representative stormwater samples

## Work Products

San Pablo Spine monitoring plan and monitoring report

Hacienda Avenue monitoring plan and monitoring report

## Plans for 2012

Team formation

Draft monitoring plans

Advice as needed.

## Recent Findings and Publications

N/A

## Project Status

In negotiations

# james V. Fitzgerald Area of Special Biological Significance Pollution Reduction Program

PROJECT CODE

**5078**

START DATE

**5/24/11**

ANTICIPATED COMPLETION

**3/31/15**

TOTAL FUNDING

**\$490,000**

FUNDING FOR SFEI LABOR

**\$248,971**

FUNDING FOR 2012 SFEI LABOR

**\$108,800**

STATUS

**Active**

DIRECT CLIENT

**San Mateo County Public Works**

PRIMARY CLIENT

**Prop 84 ASBS**

LEAD SCIENTIST

**David Senn**

PROJECT MANAGER

**jennifer Hunt**

COLLABORATORS

**San Mateo County RCD**

## Project Description

Includes implementation of targeted BMPs and an education/outreach campaign. Pilot BMPs on high threat discharges to the ASBS, a storm drain inventory and assessment, and a pathogen source tracking study will precede targeted BMP implementation. Information from these precursory studies will guide targeted, broad-scale application of the most appropriate and effective BMPs to address upland sources of specific pollutants and eliminate dry weather discharges. The Program will protect the beneficial uses of the ASBS by improving water quality at public beaches and the ASBS, help the community to meet objectives and regulations outlined in the Ocean Plan, and reduce pathogens in 303(d) listed Fitzgerald Marine Reserve and San Vicente Creek.

## Work Products

Monitoring plan, data, outreach materials, QAPP

## Plans for 2012

During late 2011 or early 2012, stormwater will be sampled upstream of BMPs during one storm event at multiple sites in order to characterize stormwater composition, and help define an appropriate and cost-effective analyte list for subsequent intensive field program. In 2012,

Pilate BMP sampling is planned at 6 sites for 2 storms, focusing on 5 different BMPs types.

## Recent Findings and Publications

This project will benefit from a number of other projects that are underway or pending, including Green Infill, El Cerrito, and Fremont TWF.

## Project Status

SFEI has developed a QAPP and monitoring plan in cooperation with San Mateo County Public Works (SMC). SMC postponed installation of several BMPs until late 2011 or early 2012, and SFEI is planning to redistribute its sampling effort accordingly, with WY2012 sampling focused in the latter part of the rainy season. In addition SFEI worked with SMC to develop a sampling plan that more meaningfully addresses the key management questions and is realistic in terms of logistics and budget.

## North Richmond Pump Station grant Program

PROJECT CODE

**5073**

START DATE

**6/1/10**

ANTICIPATED COMPLETION

**6/1/13**

TOTAL FUNDING

**\$155,218**

FUNDING FOR SFEI LABOR

**\$69,376**

FUNDING FOR 2012 SFEI LABOR

**\$26,302**

STATUS

**Active**

DIRECT CLIENT

**Contra Costa County Public Works**

PRIMARY CLIENT

**Same**

LEAD SCIENTIST

**Lester McKee**

PROJECT MANAGER

**jennifer Hunt**

COLLABORATORS

**EBMUD, AXyS, Rivermetrics & Brooks Rand**

## Project Description

SFEI will assist Contra Costa County to characterize water quality during low flow and high flow conditions in water flow through the North Richmond Pump station. This project will directly address MRP permit provision C.11.f and C.12.f that call for evaluation of the potential for reduced loads of Hg and PCBs from diversion of dry weather and first flush stormwater flows to sanitary sewers. The outcomes of the project may include diversion in this manner or recommendations for beneficial use of stormwater including use in Chevron Refinery's cooling systems or perhaps use in a new Bay Freshwater wetland.

## Work Products

Water sampling, laboratory analysis, QA, reporting

## Plans for 2012

Data management, data analysis, draft report and final report are due in 2012.

## Recent Findings and Publications

None

## Project Status

Ongoing

## geomorphology and Sediment Source Analysis

PRoJECT CoDE  
**5072**

START DATE  
**6/1/10**

ANTICIPATED CoMPLETIoN  
**5/24/12**

ToTAL FUNDINg  
**\$380,000**

FUNDINg FoR SFEI LABoR  
**\$90,000**

FUNDINg FoR 2012 SFEI LABoR  
**\$63,945**

STATUS  
**Active**

DIRECT CLIENT  
**Alameda County Flood Control and Water Conservation District**

PRIMARy CLIENT  
**Same**

LEAD SCIENTIST  
**Lester McKee / Sarah Pearce**

PRoJECT MANAgER  
**jennifer Hunt**

CoLLABoRAToRS  
**CEMAR, DHI Water and Environment, Watershed Sciences, Restoration Design group, Paul Bigelow, Mitch Swanson**

### Project Description

SFEI is coordinating a team of scientists and engineers to provide support for improved management of ACFC&WCD facilities focusing on two main issues; sediment supply and transport through the Alameda Flood Control Channel than passes through Fremont and the supply of sediment to Don Castro Reservoir. The Fremont Flood Control Channel component has a number of sub tasks. The first subtask included facilitation of the annual Alameda Creek watershed annual

meeting and facilitation of a field trip to the San Lorenzo system in Santa Cruz and the development of a lessons learned document from the decadal experience in that system as a tool for facilitating discussion between the DISTRICT and regulators (primarily the Water Board and CDFG and FWS). The outcomes were improved dialogue and a number of supporting written product (field trip notes, a PP presentation and written report of the history of channel mods in the San Lorenzo system, and a tabular comparison between the San Lorenzo and Alameda Creek systems. The remaining tasks for the Alameda system include a technical reports on sediment supply from Sinbad and Stonybrook Creeks, sedimentation and channel processes in the flood channel, a biological inventory of the flood channel and conceptual design options for a number of problem areas. The project was delayed considerably due to disagreement at the DISTRICT as to the scope but we are now entering the last 6 months and the period when a number of the products will be finalized.

### Work Products

Technical reports, meeting facilitations, design/management options, meeting presentations, peer-review

### Plans for 2012

Work products for 2012 will focus on data management, data analysis, and technical report writing for the assessment of the Alameda flood control channel, Sinbad/Stony Brook watersheds, and the Eden/Hollis tributaries to Don Castro reservoir.

### Recent Findings and Publications

- To-date we have produced an number of technical reports to support the Alameda County Flood Control and Water Conservation District. These are available on our website and include:
- McKee, L.J., and Pearce S., 2011. Comparison of Alameda Creek Flood Control Project in Alameda County to the San Lorenzo River Flood Control Project in the City of Santa Cruz. Memo delivered to the Alameda County Flood Control and Water Conservation District as part deliverable to SFEI Task 2, contract number 5132, December 8, 2010. 4pp.

- Pearce, S., and McKee, L., 2010. 12/8/10 Santa Cruz San Lorenzo River Fieldtrip Summary. Memo prepared for to the Alameda County Flood Control and Water Conservation District as part deliverable to SFEI Task 2, contract number 5132, December 8, 2010
- Swanson Hydrology and Geomorphology, 2010. San Lorenzo River Flood Control Project, Levee Retrofit and Revised Maintenance Measures: An example of performance based maintenance. Report to the Alameda County Flood Control and Water Conservation District as part deliverable to SFEI Task 2, contract number 5132, December 8, 2010
- Pearce, S., Bigelow, P., and McKee, L., 2009. Dry Creek Watershed Sediment Source Reconnaissance. A technical report of the Regional Watershed Program prepared for Alameda County Flood Control and Water Conservation District (AFC&WCD): SFEI Contribution 595. San Francisco Estuary Institute, Oakland CA, xx pp.
- Pearce, S., and McKee, L., 2009. Alameda Creek Bulk Sediment Study. A technical report of the Regional Watershed Program prepared for Alameda County Flood Control and Water Conservation District (AFC&WCD): SFEI Contribution 596. San Francisco Estuary Institute, Oakland CA, 22 pp.
- McKee, L., 2009. Review of sediment gauging studies in Alameda Creek Watershed. SFEI Contribution #571. San Francisco Estuary Institute, Oakland, CA. 25pp.
- Bigelow, P., Pearce, S., McKee, L., and Gilbreath, A., 2008. A Sediment Budget for the Alameda Creek Channel between Niles Canyon, Arroyo De La Laguna at Verona and Alameda near the Welch Creek Confluence. A Technical Report of the Regional Watershed Program: SFEI Contribution #550. San Francisco Estuary Institute, Oakland, CA. 140pp + Appendix.
- Gilbreath, A.N, and McKee, L.J, 2008. Spatiotemporal variation of turbidity in Alameda

Creek and selected tributaries: August thru December 2007. A Technical Report of the Regional Watershed Program: SFEI Contribution 547. San Francisco Estuary Institute, Oakland, CA. 53pp + Appendices

## Project Status

Ongoing

## Sedimentation Study of Arroyo Mocho & Arroyo Las Positas

PROJECT CODE

**5075**

START DATE

**10/1/10**

ANTICIPATED COMPLETION

**9/30/12**

TOTAL FUNDING

**\$450,000**

FUNDING FOR SFEI LABoR

**\$272,000**

FUNDING FOR 2012 SFEI LABoR

**\$150,067**

STATUS

**Active**

DIRECT CLIENT

**Alameda County Flood Control and Water Conservation District (Zone 7)**

PRIMARY CLIENT

**Same**

LEAD SCIENTIST

**Lester McKee**

PROJECT MANAGER

**Alicia gilbreath**

COLLABORATORS

**N/A**

## Project Description

Zone 7 Water Agency maintains 37 miles of channels



that receive and convey urban drainage from the tri-cities and runoff and eroded sediment from the watersheds of Arroyo Mocho, Arroyo Las Positas and tributaries to the north totaling approximately 220 square miles. In recent several decades, population has increased dramatically and agriculture has been shifting in the Valley from non-irrigated rangeland to irrigated and controlled drainage viticulture. As a result, the flow of sediment and water has continued to evolve so that now there is evidence of sedimentation and modeling now indicates that the combination of loss of capacity from sedimentation coupled with increased peak flows has lead to channels that do not pass design flows in some reaches. In addition, the Zone 7 has been coming under pressure to include improved habitat and water quality function as well as flood control function to its operating procedures. Obtaining permits for routine maintenance activities, such as sediment removal, is more challenging than ever before.

These issues have caused the Zone 7 to embark upon a 3-year fact finding study to directly support improved modeling for design and compliance purposes and decisions about future operations and maintenance of its facilities focusing on the mainstem of Arroyo Mocho upstream from Alamo Canal and downstream from the Arroyo Mocho at Hagemann gage (the study area). The sub-objectives of this fact finding effort are:

- Determine the flow of water and sediment into and out of mainstem Arroyo Mocho,
- Determine characteristics, rates, and causes of sedimentation in DISTRICT channel facilities,
- Develop a sediment budget for the study reach as a tool for clearly communicating the main sources and processes affecting the function of DISTRICT channels within the study area,
- Map and characterize channel modification and mitigation opportunities based on a comparison of historic and modern channel function,
- Communicate findings primarily to the DISTRICT and also to stakeholders within the Alameda Watershed Council.

## Work Products

- A series of technical reports on 1. Data and literature review, 2. Suspended sediment and bedload measurements, 3. Sediment supply processes and loads from the northern tributaries, 4. Sediment deposition rates and character in the floodcontrol channels, 5. Sediment budget for the study area, 6. Historical Ecology interpretations, and a series of GIS layers and raw data files
- A final report including synthesis and recommendations

## Plans for 2012

- Measure suspended sediment load and bedload for 3 stations
- Second phase of the project (contract pending) that will include completion of efforts on sediment transport, channel characterizations, sediment budget, and historical ecology.

## Recent Findings and Publications

Three reports in full draft or in progress but not final yet.

## Project Status

Ongoing

## guadalupe River Monitoring Water year 2012

PROJECT CODE

**5080**

START DATE

**8/1/11**

ANTICIPATED COMPLETION

**7/31/12**

TOTAL FUNDING

**\$73,306**

FUNDING FOR SFEI LABOR

**\$43,387**

FUNDING FOR 2012 SFEI LABOR

**\$27,860**

STATUS

**Active**

DIRECT CLIENT

**EoA**

PRIMARY CLIENT

**SCVURPPP**

LEAD SCIENTIST

**Lester McKee**

PROJECT MANAGER

**jennifer Hunt**

COLLABORATORS

**N/A**

## Project Description

The San Francisco Bay Hg and PCB TMDLs call for a reduction in loads by 50 and 90% respectively. In response, the Municipal Regional Permit for Stormwater (MRP) (SFRWQCB, 2009) (Provision C.8.e.) calls for better quantification of loads of sediments and trace contaminants on a watershed basis and regionally. The MRP calls for the implementation of 4 bottom of the watershed pollutants of concern (POC) monitoring stations during Water Year 2012. The Guadalupe River at Highway 101 has been selected as one of the 4 monitoring locations to go online in WY 2012. The primary POCs include mercury, PCBs, selenium, and methylmercury. The RMP is funding 2 of the other 4 monitoring locations. Funding from the RMP and BASMAA will be used to write up preliminary findings and recommendations for WY 2013. A final technical report will be written during WY 2014.

## Work Products

Water samples will be collected during 4 storm events in WY 2012 for both Category 1 and Category 2 POCs. Samples will be sent to various laboratories for analysis. Preliminary analysis will be completed with funding from the RMP and BASMAA. A presentation will be given to SCVURPPP on first-year findings.

## Plans for 2012

Water samples will be collected during 4 storm events in WY 2012 for both Category 1 and Category 2 POCs. Samples will be sent to various laboratories for analysis.

## Recent Findings and Publications

text here

## Project Status

ongoing

## BASMAA

## Pollutants of Concern (POC)

PROJECT CODE

**50xx**

START DATE

**11/1/11**

ANTICIPATED COMPLETION

**9/30/12**

TOTAL FUNDING

**\$229,954**

FUNDING FOR SFEI LABOR

**\$116,062**

FUNDING FOR 2012 SFEI LABOR

**\$65,700**

STATUS

**In Negotiation**

DIRECT CLIENT

**BASMAA**

PRIMARY CLIENT

**Same**

LEAD SCIENTIST

**Meredith Williams**

PROJECT MANAGER

**Cristina grosso**

COLLABORATORS

**ADH, BASMAA**

**Project Description**

This project will assist BASMAA with their regional Pollutants of Concern (POC) monitoring and coordinate efforts with the RMP's Small Tributaries and Loadings Study. The scope of work, which supports the Municipal Regional Permit (MRP) section C.8.e RMC 5d, includes various tasks required to develop and maintain the POC information management system. A total of 4 sites will be sampled for 4 storms (16 sampling events) for one year. The RMP will fund two sites, and Region 5 will fund the collection of additional analytes at the Lower Marsh site.

**Work Products**

Products for this project include: (1) subcontract with the seven different analytical laboratories, (2) perform laboratory contract management, (3) modify SFEI's Regional Data Center database to support time series data, (4) develop data review and access tool for the project, (5) perform data quality assurance and data management services, (6) provide preliminary data analysis and presentation of results, and (6) coordinate with the RMP's Small Tributaries and Loadings Study.

**Plans for 2012**

The data for this project will be received in 2012. SFEI staff will work on modifying the Regional Data Center database to support time series data, developing a data review and access tool for the project, performing data quality assurance and data management services, and providing preliminary data analysis and presentation of results.

**Recent Findings and Publications**

In 2011, the subcontracts with the analytical laboratories were developed, and SFEI staff participated in meetings to coordinate this project with the RMP's Small Tributaries and Loadings Study.

**Project Status**

In Negotiations

## Sediment Load Estimates and Contaminant Characterization

**PROJECT CODE**

?

**START DATE**

12/1/11

**ANTICIPATED COMPLETION**

5/30/13

**TOTAL FUNDING**

\$61,000

**FUNDING FOR SFEI LABOR**

\$61,000

**FUNDING FOR 2012 SFEI LABOR**

**\$0 - potentially \$50,000 of the labor amount will be spent in 2012; however, there is too much uncertainty to allocate hours to staff 50,000**

**STATUS**

**Active**

**DIRECT CLIENT**

**Alameda Countywide Clean Water Program**

**PRIMARY CLIENT**

**BASMAA**

**LEAD SCIENTIST**

**Lester McKee**

**PROJECT MANAGER**

**jennifer Hunt**

**COLLABORATORS**

**Regional Board**

**Project Description**

The Municipal Regional Permit (MRP) requires municipalities to estimate sediment loads to the Bay from local tributaries and urban drainages and also requires an estimation in the concentration and distribution of PBDEs, legacy pesticides, and selenium. Through a combination of literature review and modeling, SFEI will assist municipalities in developing sediment loads estimates and characterization of contaminant occurrence.

## Work Products

Summary memo on initial sediment load estimates and a report summarizing regional loads of PBDEs, legacy pesticides, and selenium from urban runoff conveyance systems.

## Plans for 2012

This project will be scoped in detail in early 2012, with about half of the work completed within calendar year 2012.

## Lindsey Slough Methyl Hg Study

PROJECT CODE  
**1082**

START DATE  
**12/1/08**

ANTICIPATED COMPLETION  
**12/31/13**

TOTAL FUNDING  
**\$89,446**

FUNDING FOR SFEI LABOR  
**\$64,507**

FUNDING FOR 2012 SFEI LABOR  
**\$7,730**

STATUS  
**Active**

DIRECT CLIENT  
**Solano Land Trust**

PRIMARY CLIENT  
**California Department of Fish and game**

LEAD SCIENTIST  
**Don yee**

PROJECT MANAGER  
**jennifer Hunt**

COLLABORATORS  
**Brooks Rand, EBMUD**

## Project Description

Solano Land Trust needs to implement a methylmercury characterization study in association with the Lindsey Slough Enhancement Project, a Freshwater Tidal Wetland Enhancement Project in the Northwest Delta. Methylmercury monitoring and analysis will be conducted before and after project instruction in order to characterize the effects of tidal wetland enhancement on methylmercury levels in the project area and methylmercury loading to the Delta.

## Work Products

A pre-restoration and post-restoration report.

## Plans for 2012

There are plans to begin post construction monitoring beginning in the fall 2012 with the bulk of post construction monitoring occurring in 2013.

## The Regional Monitoring Program for Water Quality in the San Francisco Estuary - carry-over Projects from 2011

PROJECT CODE  
**3011**

START DATE  
**9/1/10**

ANTICIPATED COMPLETION  
**3/31/12**

TOTAL FUNDING  
**\$3,429,780**

FUNDING FOR 2012 SFEI LABOR  
**\$140,487**

STATUS  
**Active**

DIRECT CLIENT  
**NPDES permit holders for San Francisco Bay**

PRIMARY CLIENT  
**Same**

## LEAD SCIENTIST

**Jay Davis**

## PROJECT MANAGER

**Meg Sedlak**

## COLLABORATORS

**N/A**

## Project Descriptions

The RMP budget for 2011 was approximately \$3.4 million dollars with approximately \$500,000 of that budget dedicated to pilot and special studies. The RMP has three special studies which were begun late in 2011: PCB synthesis document, EC synthesis document and the NIST broadscan screening of anthropogenic compounds. Short description are presented below.

### PCB Synthesis

Over the last five years, a wealth of information has been obtained including new information on surface sediments and water using the RMP randomized design; additional trend data for bird eggs, bivalves, and sport fish; surprising data from small fish which shows relatively elevated concentrations given their trophic status; and information on the full suite of congeners. Similar to mercury, the goal of the synthesis effort will be to produce a technical report that answers, to the extent possible, the PCB Strategy questions based on these new sources of information.

In addition, the synthesis will evaluate: TMDL and abatement actions taken elsewhere to determine whether there are lessons that are applicable to the Bay Area; information on PCB-11; the linkage between sediment and sportfish, particularly why the decline in sediments and bivalves has not been reflected in sportfish; an evaluation of sources using congener profiles; an update of the food web model and a review of degradation rates which have been tremendously influential on the prediction of recovery rates.

### EC Synthesis

In the last five years, the RMP has had the opportunity to collect data on emerging contaminants through RMP funded special studies as well as opportunistically working with other

researchers to have San Francisco Bay samples analyzed pro bono. The objective of this study is to: prepare a summary report that synthesizes CEC data for San Francisco Bay; evaluate the San Francisco Bay data in light of the recommendations made by the expert advisory panel regarding prioritization and monitoring of CECs; and make recommendations for the next steps for monitoring the San Francisco Bay.

This study will include a review of CEC data for San Francisco Bay including RMP studies as well as work conducted by others. RMP work includes: the South Bay pharmaceutical study (2006); perfluorinated compounds in biological matrices (e.g., seals, bird eggs, bivalves, etc.); perfluorinated compounds in potential sources (e.g., tributaries, wastewater effluent, sediment, etc.); non-PBDE, current use flame retardants in sediments and wildlife; triclosan in sediments; chlorinated paraffins; nonylphenol in small fish; pharmaceuticals and personal care products in mussels, water and sediment; nano-tubes; and the non-targeted screening of biological tissues (Section 4.5). This study will also evaluate the results of the NOAA Mussel Watch California Pilot Study conducted in San Francisco Bay and consider the recent reports by the advisory panels on Recycled Water and CEC Discharges to Coastal Waters.

### NIST BroadScan Screening for Anthropogenic Compounds

Significant advances in analytical instrument techniques present a great opportunity for the RMP to conduct broad non-targeted scans of San Francisco Bay biota to potentially identify chemicals of emerging concern. Recent advancement in GC-GC time of flight at the National Institute for Standards and Technology (NIST) has allowed NIST to screen human samples to determine which contaminants are accumulating in humans. NIST will apply a similar broad scan approach to San Francisco Estuary samples to identify previously unmonitored anthropogenic chemicals. While labor intensive, this approach has the potential to direct our monitoring efforts to the chemicals that are accumulating in biota, rather than conducting extensive and expensive monitoring of biota without an indication that the contaminants are bioaccumulating.

Because different organisms have different potentials to bioaccumulate and to metabolize contaminants, we collected pooled samples of bivalves as part of the RMP 2010 bivalve monitoring effort and the NOAA Mussel Watch program and pooled harbor seal samples as part of our collaborations with The Marine Mammal Center. In addition, because contaminants have different physical and chemical properties, they will have different affinities for lipids, blood, and tissue. As a result, all three matrices will be analyzed for in seals.

#### Work Products

The EC synthesis and PCB synthesis reports will be completed in the first quarter of 2012; the Broadscan report will be completed in the third quarter of 2012.

#### Plans for 2012

Completion of the three reports.

#### Recent Findings and Publications

Although not directly RMP-related, Susan Klosterhaus's recent publication in Environmental Science and Technology on the identification of alternative flame retardants in baby products was one of the top ten most read articles in the third quarter. For a copy of the article see the Environmental Science and Technology web site: <http://c.acs.org/czdfi/416387/0/71061/11683/0/D/0/0/gpus.html>

#### Project Status

Active

## The Regional Monitoring Program for Water Quality in the San Francisco Estuary - 2012

PROJECT CODE  
**3012**

START DATE  
**8/1/11**

ANTICIPATED COMPLETION  
**3/31/13**

TOTAL FUNDING  
**\$3,426,234**

FUNDING FOR SFEI LABOR  
**\$1,745,680**

FUNDING FOR 2012 SFEI LABOR  
**\$1,718,628**

STATUS  
**Active**

DIRECT CLIENT  
**RMP stakeholders including wastewater treatment facilities, dredgers, refineries, storm water agencies, industrial dischargers, RWQCB (Region 2) and USEPA (Region 9).**

PRIMARY CLIENT  
**Same**

LEAD SCIENTIST  
**Jay Davis**

PROJECT MANAGER  
**Meg Sedlak**

COLLABORATORS  
**RWQCB, USEPA, USGS, BACWA, BPC, BCDC**

#### Project Description

The RMP is a partnership that combines shared financial support, direction, and participation by regulatory agencies and the regulated community in a model of collective responsibility. The RMP has established a climate of cooperation and a commitment to participation among a wide range of regulators, dischargers, industry representatives, non-governmental agencies, and scientists. The RMP provides an open forum for interested parties to discuss contaminant issues facing the Bay.

Stable funding has enabled the RMP to develop long-term plans through the core annual monitoring program, Status and Trends. In addition, pilot and special studies provide an opportunity to adapt to changing management priorities and advances in scientific understanding. RMP committees and workgroups meet regularly to keep the Program efficient, focused on the highest priority issues, and to ensure that the RMP is based on sound science.

The RMP has continually improved since its inception in 1993.

The RMP has produced a world-class dataset on estuarine contaminants. Monitoring performed in the RMP determines spatial patterns and long-term trends in contamination through sampling of water, sediment, bivalves, bird eggs, and fish, and evaluates toxic effects on sensitive organisms and chemical loading to the Bay. The Program combines RMP data with data from other sources to provide for comprehensive assessment of chemical contamination in the Bay.

The RMP provides information targeted at the highest priority questions faced by managers of the Bay. The RMP produces an Annual Monitoring Report that summarizes the current state of the Estuary with regard to contamination, a summary report (Pulse of The Estuary), technical reports that document specific studies and synthesize information from diverse sources, and journal publications that disseminate RMP results to the world's scientific community. The RMP website provides access to RMP products and links to other sources of information about water quality in San Francisco Bay.

The RMP budget for 2012 is projected to be <\$3.4> million dollars with approximately <\$800,000> of that budget dedicated to pilot and special studies. These studies are described in more detail below.

## Work Products

The following deliverables are scheduled for 2012:

Pulse of the Estuary summarizing Status and Trends data. This year's theme is likely to be emerging contaminants.

- Annual Monitoring Results. This document summarizes the methods and results of the 2010 sample collection.
- Annual Meeting. The Annual Meeting will be held in the Fall of 2012. This year's theme is likely to be emerging contaminants.

## Plans for 2012

The RMP is comprised of two major elements: annual Status and Trends monitoring and special studies which vary year to year. A description of activities for each element are described below:

In addition, SFEI staff also manages the Program, provides Quality assurance and control functions and leads data management activities and information synthesis.

## RMP Program Management

PRoJECT CoDE

**RMP 3012**

START DATE

**January 2012**

ANTICIPATED CoMPLETIoN

**December 2012**

ToTAL FuNDING

**\$599,500**

FUNDING FoR SFEI LABoR

**\$525,000**

FUNDING FoR 2012 SFEI LABoR

**\$525,000**

CLIEnt

**RMP stakeholder, RWQCB, and USEPA**

LEAD SCIENTIST

**Jay Davis**

PRoJECT MANAgER

**Meg Sedlak**

CoLLABoRAToRS

**RMP Stakeholders**

## Project Description

The administration and management of the RMP requires a substantial effort from SFEI staff. Costs for this component of the RMP reflect the staff time required to manage finances and contracts, plan and coordinate internal activities and workgroups, and provide technical oversight of RMP products.



## Work Products

The work products for this task are quite varied and include: Workgroup, Technical Review Committee and Steering Committee meetings; written documents such as Program Plans, memorandums, scope of work, contracts and workplans; presentations to TRC/SC and workgroups and external participants, and project management (meetings and staffing).

## Information management and synthesis

PRoJECT CoDE  
**RMP 3012**

START DATE  
**january 2012**

ANTICIPATED CoMPLETION  
**December 2012**

ToTAL FUNDING  
**\$732,000**

FUNDING FoR SFEI LABoR  
**\$665,000**

FUNDING FoR 2012 SFEI LABoR  
**\$665,000**

STATUS  
**Will start in january 2012**

CLIENT  
**RMP Participants**

LEAD SCIENTIST  
**jay Davis**

PRoJECT MANAgER  
**Meg Sedlak**

CoLLABoRAToRS  
**RMP Stakeholders**

## Project Description

The overarching goal of the RMP is “to collect data and communicate information about water quality in the San Francisco Estuary to support management

decisions.” Therefore, all activities related to data management, RMP web site maintenance, development of newsletters, the RMP Annual Meeting, presentations, and information transfer to a variety of audiences, including preparation of the RMP Annual Monitoring Results and the “Pulse of the Estuary”, are included in this category.

## Work Products

Varied. Maintenance and improvements of the database; newsletters, annual meeting, national presentations, Pulse of the Estuary and the Annual Monitoring Results.

## Status and Trends

PRoJECT CoDE  
**RMP 2012**

START DATE  
**january 2012**

ANTICIPATED CoMPLETION  
**December 2012**

ToTAL FUNDING  
**\$937,000 (Pending SC approval of changes to S&T)**

FUNDING FoR SFEI LABoR  
**\$60,000**

FUNDING FoR 2012 SFEI LABoR  
**\$60,000**

STATUS  
**Will start in january 2012**

CLIENT  
**RMP Participants**

LEAD SCIENTIST  
**jay Davis**

PRoJECT MANAgER  
**Meg Sedlak**

CoLLABoRAToRS  
**RMP Stakeholders**

## Project Description

The Status and Trends (S&T) monitoring program is provides long term status and trends data regarding sediment, water, sportfish, and bivalves. The SC/ TRC are currently reviewing changes to the frequency of the monitoring of sediment, water and sportfish. Assuming the proposed changes are accepted, the program will be sampling sediment (wet season), bird eggs and bivalves and analyzing these matrices for organic and inorganic compounds of interest.

## Work Products

Collection and analysis of sediment, bivalves and bird eggs.

## Recent Findings and Publications

- A sudden decrease in suspended sediment concentrations occurred in 1999.
- Increasing chlorophyll concentrations have been observed in the Bay and are attributed to a variety of possible drivers (e.g., decrease in SSC concentrations and an increase in bivalve predators such as English sole, shrimp and crab).
- PBDE concentrations appear to be leveling off (BDE 47) or declining (BDE 209)
- Concentrations of mercury in sediment correlate poorly with methylmercury in sediment (MeHg represents 1% of the total Hg).

## Watershed Loads Monitoring and Modeling

PROJECT CODE  
**RMP 3012**

START DATE  
**october 2011**

ANTICIPATED COMPLETION  
**December 2012**

TOTAL FUNDING  
**\$428,000**

FUNDING FOR SFEI LABoR  
**\$209,400**

FUNDING FOR 2012 SFEI LABoR

**To be determined (function of wet weather events in 2011)**

STATUS  
**Active**

CLIENT  
**RMP Participants**

LEAD SCIENTIST  
**Lester McKee/ Jay Davis**

PROJECT MANAGER  
**Jen Hunt/Meg Sedlak**

COLLABORATORS  
**EOA, BASMAA, HDA,**

## Project Description

The Sources, Pathways, and Loadings Workgroup (SPLWG), has been conducting tributary loading studies for nine years. The focus has been to provide information on sediment and pollutant transport processes in urban watersheds around the Bay. Most of the sampling effort has been focused on three SPLWG identified priority locations: Mallard Island on the Sacramento River; Guadalupe River in San Jose; and the Zone 4 Line A flood control channel in Hayward. Based on a review of the data to date, the SPLWG has recommended an expanding the number and type of watersheds monitored, continued development of a simple spreadsheet model, and additional development of event mean concentration of loads based on watershed type (land use, soil type, erosivity, vegetation, etc.) and contaminant. In 2012, two new watersheds will be sampled – San Leandro and Sunnyvale.

In addition to monitoring watersheds, a high priority for the Small Tributaries Loading Strategy (STLS) is to develop models to estimate the loads from local watersheds to the Bay and how these loads may be reduced or mitigated. The regional spreadsheet model developed in 2010 was a significant improvement on the simple model that was created in 2000. The improved model can calculate average monthly storm water volumes and better estimates of regional loads

through improved spatial and temporal coverage. The base spreadsheet model will be further refined in 2012 with input from the Sources Pathways and Loading Workgroup. Lastly, the SPLWG will continue to develop methods for estimating event mean concentrations based on watershed types, land use, condition (e.g., crack pavement) etc.

## Work Products

Technical Report, Peer-reviewed publications, presentations to the workgroup and TRC.

## Plans for 2012

Sampling November through April, review of data August – September, write up of reports in late December.

## Recent Findings and Publications

- The magnitude of estimated small tributary loads has increased dramatically relative to large river loads for PCBs and mercury as we have obtained more information over the past eight years.
- More intense rainfall in the New Almaden historic mining district mobilizes sediment particles with high mercury concentrations.
- PCBs in the Guadalupe River watershed predominantly originate from urbanized areas in the lower watershed.
- Distinct differences in wet and dry years lead to high variability in mercury loadings to the Bay.
- Area-scaled loadings of many pollutants were similar from the Guadalupe watershed and from a small highly urbanized watershed in Hayward.

## Dioxins in Status and Trends

PROJECT CODE  
**RMP 2012**

START DATE  
**January 2012**

ANTICIPATED COMPLETION  
**December 2012**

TOTAL FUNDING  
**\$87,800**

FUNDING FOR SFEI LABOR  
**\$26,580**

FUNDING FOR 2012 SFEI LABOR  
**\$26,580**

STATUS  
**Active**

CLIENT  
**RMP Participants**

LEAD SCIENTIST  
**Susan Klosterhaus and Don yee**

PROJECT MANAGER  
**Meg Sedlak**

## Project Description

In 1998, San Francisco Bay was placed on the State of California's 303 (d) list of impaired waterways as a result of elevated concentrations of dioxins in fish. Monitoring of sport fish has shown that the concentrations have remained relatively constant over time and continue to exceed screening values for human consumption. In 2012, we will continue our efforts to characterize sources, reservoirs, and the fate of dioxin in the estuary. We will augment the existing storm water monitoring efforts and sample two watersheds to determine dioxin loadings. In addition, we will characterize dioxin in bird eggs and sediment.

Work Products  
Review of data and reporting to the TRC/Dioxin workgroup.

Plans for 2012  
Collection of samples in the summer and review of data fall/ winter.

## Recent Findings and Publications

- The key sport fish indicator species (shiner surfperch and white croaker) have been higher than the Water Board target of 0.14 ppt and show no sign of decline.
-

- Dioxin-toxic equivalents in Least Tern, Caspian Tern, and Forster's Tern eggs are at or above estimated thresholds for adverse effects; risks especially significant in combination with dioxin-like PCBs.

that synthesizes Contaminants of Emerging Concern (CEC) data for San Francisco Bay, evaluates the San Francisco Bay data in light of recommendations made by the expert state advisory panel regarding prioritization and monitoring of CECs, and makes recommendations for the next steps for monitoring San Francisco Bay.

## Synthesis on Chemicals of Emerging Concern (CEC)

PROJECT CODE  
**RMP 2012**

START DATE  
**August 2011**

ANTICIPATED COMPLETION  
**August 2012**

TOTAL FUNDING  
**The funding level for this study is \$30,000 for the second half of 2011; with an additional \$15,000 earmarked for the first half of 2012.**

FUNDING FOR SFEI LABOR  
**\$45,000**

FUNDING FOR 2012 SFEI LABOR  
**\$15,000**

STATUS  
**Commenced late in 2011.**

CLIENT  
**RMP Participants**

LEAD SCIENTIST  
**Susan Klosterhaus and Meg Sedlak**

PROJECT MANAGER  
**Meg Sedlak**

COLLABORATORS  
**Rachel Allen (SFEI)**

### Project Description

In the last five years, the RMP has collected data on emerging contaminants through RMP-funded special studies and by working with other researchers to have San Francisco Bay samples analyzed. The objective of this study is to prepare a summary report

Work Products  
Technical Report

Plans for 2012  
Review and synthesis of existing Bay Area CEC data.

## Monitoring Emerging Contaminants: PFCs in the Bay

PROJECT CODE  
**RMP 2012**

START DATE  
**January 2012**

ANTICIPATED COMPLETION  
**December 2012**

TOTAL FUNDING  
**\$87,000**

FUNDING FOR SFEI LABOR  
**\$40,000**

FUNDING FOR 2012 SFEI LABOR  
**\$40,000**

STATUS  
**Active**

CLIENT  
**RMP Participants**

LEAD SCIENTIST  
**Meg Sedlak**

COLLABORATORS  
**The Marine Mammal Center; Moss Landing Marine Labs**

## Project Description

Previous RMP studies have identified elevated concentrations of perfluorinated compounds, specifically perfluorooctane sulfonates (PFOS) in cormorant eggs and seal blood from the South Bay. Cormorant eggs were sampled as part of the RMP bird egg monitoring program in 2006 and in 2009, with little evidence of a temporal decline. Of the three locations sampled in the estuary, concentrations of PFOS in eggs from the South Bay were the highest and exceed the predicted no effects concentration threshold of 1,000 ng/g. Similarly, the highest PFOS concentrations were from seals that were sampled in the South Bay. At present, there are no effects thresholds for harbor seals. Seals were sampled in the South Bay in 2004 and no additional follow up work has been conducted. This study will sample seals and will augment existing work that is being conducted as part of the bird egg sampling scheduled for 2012. Additional sampling of forage fish and sediment will assist in the identification of pathways of uptake.

## Work Products

Technical Report

## Plans for 2012

Data collection: January through April; laboratory analysis and data review May through October; report writing November through January 2013.

## Recent Findings and Publications

Sedlak, M and D. Greig. In Press. Perfluoroalkyl Compounds (PFCs) in Wildlife

from an Urban Estuary.  
Journal of Environmental Monitoring.

## Modeling

PROJECT CODE  
**RMP 2012**

START DATE  
**January 2012**

ANTICIPATED COMPLETION  
**December 2012**

## TOTAL FUNDING

**\$100,000**

## FUNDING FOR SFEI LABOR

**\$70,000**

## FUNDING FOR 2012 SFEI LABOR

**\$70,000**

## STATUS

**Active**

## CLIENT

**RMP Participants**

## LEAD SCIENTIST

**Jay Davis**

## COLLABORATORS

**Craig Jones, Sea Engineering; RWQCB; US Army Corps of Engineers; U.S.**

## Project Description

The RMP is in the process of identifying potential models that will answer key management questions such as: What is the contribution of contaminated Bay margins to Bay impairment and what are the projected impacts of Bay margin management actions to Bay recovery? What patterns of exposure are forecast for major segments of the Bay under various management scenarios? Answers to these questions will be useful for: the next iteration of the mercury and PCBs TMDLs in 2016-2020; modeling of nutrients; potential TMDLs for other contaminants; prioritizing remediation of small tributaries and contaminated margin sites; and identifying best options for management actions to reduce impairment

## Work Products

Presentation to workgroup

## Plans for 2012

Workgroup meetings.

## Exposure and Effects: Sediment Quality Assessment of Targeted Toxic Hot Spots in San Francisco Bay

PRoJECT CoDE  
**RMP 2012**

START DATE  
**january 2012**

ANTICIPATED CoMPLETION  
**october 2012 (estimated)**

ToTAL FUNDING  
**The funding level for this study is \$60,000 for 2011 and \$30,000 for 2012.**

FUNDING FoR SFEI LABoR  
**\$25,000**

FUNDING FoR 2012 SFEI LABoR  
**\$15,000**

STATUS  
**Active**

CLIENT  
**RMP Participants**

LEAD SCIENTIST  
**Meg Sedlak**

PRoJECT MANAgER  
**Meg Sedlak**

CoLLABoRAToRS  
**Moss Landing Marine Laboratory, SCCWRP**

### Project Description

In 2009, the State Water Resources Control Board adopted the Sediment Quality Objectives for marine waters in Enclosed Bays and Estuaries (SQOs). The SQOs are based on an evaluation of sediment chemistry, benthos, and sediment toxicity. A fundamental challenge in SQO implementation has been the interpretation of the results of these assessments. This project will evaluate the chemistry, benthos, and toxicity at six previously identified hotspots within San Francisco Bay. Results from these evaluations will be compared to the evaluations of the 27 RMP sites for which there are similar data.

### Work Products

Sediment Quality Objectives assessment scores that will be summarized in a technical report.

Plans for 2012

Review results first quarter 2012; work with SCCWRP to develop SQO scores; write up report.

## Developing the Foundation for Early-Stages of a Bay Nutrient Strategy

PRoJECT CoDE  
**RMP 2012**

START DATE  
**january 2012**

ANTICIPATED CoMPLETION  
**December 2012**

ToTAL FUNDING  
**\$110,000**

FUNDING FoR SFEI LABoR  
**\$110,000**

FUNDING FoR 2012 SFEI LABoR  
**\$110,000**

STATUS  
**Pending approval by SC**

DIRECT CLIENT  
**RMP**

LEAD SCIENTIST  
**David Senn, Jay Davis**

PRoJECT MANAgER  
**Meg Sedlak**

CoLLABoRAToRS  
**Nutrient Workgroup, Region 2 Water Board staff, Martha Sutula (SCCWRP), Lester McKee (SFEI), Jim Cloern (USGS), Dick Dugdale (SFSU-RTC), Mike Connor (EBDA),**

## Project Description

San Francisco Bay has long been recognized as a nutrient-enriched estuary, but one that has historically proven resilient to the harmful effects of nutrient enrichment, such as excessive phytoplankton blooms and hypoxia. The published literature suggests that the accumulation of phytoplankton biomass in the Bay is strongly limited by tidal mixing, grazing pressure by invasive clams, light limitation from high turbidity, and potentially, in the North Bay, ammonium inhibition of diatom uptake of nitrate. However, evidence is building that, since the late 1990s, the historic resilience of the Bay to the harmful effects of nutrient enrichment is weakening (Cloern et al., 2006; Cloern et al., 2007).

In response to the apparent changes in the Bay's resilience to nutrient loading, and recognizing the need for both an assessment framework for nutrients (McKee et al, 2011) and a long-term monitoring strategy to assess impairment of the Bay, work has commenced on developing a Nutrient Strategy for the Bay. The Nutrient Strategy development is a collaborative effort between the Region 2 Water Quality Control Board, partners from the discharger community, and regional scientists. The goal of the Nutrient Strategy is to lay out a well-reasoned and cost-effective program to generate the scientific understanding needed to fully support major management decisions and questions.

This project focuses on two technical studies (Tasks 1 and 2) that have emerged as high-priority issues during the Nutrient Strategy development process thus far. Task 1 focuses on

- i) Developing spatially-explicit conceptual models for nutrient dynamics in Bay segments; and
- ii) With input from a broad group of stakeholders and scientists, developing and evaluating future scenarios for the Bay (e.g., higher/lower nutrient loads, changes in water column transparency, natural and managed variations in Delta freshwater flows, etc.) to define the primary future concerns, which will in turn serve as guides for prioritizing scientific studies, monitoring, and modeling

work.

Task 2 will develop spatially- and temporally-explicit estimates of nutrient loads to the Bay, and identify critical data gaps that contribute most to current uncertainty in total loads, speciation of those loads, and the relative importance of various sources. A conceptual model for external loads will first be developed. A summary of external loads to the South Bay has already estimated by SFEI (McKee and Gluchowski, 2011). This study will expand that loading work into the Central and North Bay, develop daily, monthly, and annual load estimates, and explore the importance of uncertainties in loading and nutrient speciation. Funding for 40% of loading study is being sought in 2012, and the remaining 60% will be requested for 2013.

Additional funds (\$10,000) are being sought through this project for project management and coordination of RMP nutrient work with the broader Nutrient Strategy development, and to communicate developments to RMP stakeholders.

## Work Products

A draft technical report for Task 1 will be distributed to the Nutrient Workgroup for comment, and a final report completed in December 2012. Draft and final reports for Task 2 will be completed in the first half of 2013.

## Plans for 2012

Nutrient Workgroup meetings will be held approximately quarterly during which time progress on Tasks 1 and 2 will be discussed. Task 1 is scheduled to start and be completed in 2012. Small meetings with partners, stakeholders, and regional scientists will take place in the first and second quarter, with draft conceptual models presented to the Nutrient Workgroup during that time. For Task 2, data gathering and initial analysis will be on-going throughout 2012, with regular updates and feedback from the Nutrient Workgroup.

## Recent Findings and Publications

Development of the Nutrient Strategy is on-going, and discussions held related to strategy development in 2012 have helped identify scenarios to be considered in Task 1.



## Project Status

The proposed work has been recommended for funding by the TRC and awaits approval from the SC. The project will begin fully in January 2012, pending SC approval.

## grasslands Bypass Report

PRoJECT CoDE

**1091**

START DATE

**4/1/02**

ANTICIPATED CoMPLETIoN

**9/30/15**

ToTAL FUNDINg

**\$1,016,210**

FUNDINg FoR SFEI LABoR

**\$955,350**

FUNDINg FoR 2012 SFEI LABoR

**\$91,500**

STATUS

**Active**

DIRECT CLIENT

**U.S. Bureau of Reclamation**

PRIMARy CLIENT

**Same**

LEAD SCIENTIST

**Nicole David**

PRoJECT MANAgER

**Same**

CoLLABoRAToRS

**Dr. Andrew gordus, Rachel MacNeal  
(California Department of Fish and game)**

**Chris Linneman, joe McGahan  
(Summers Engineering Inc.)**

**gail Louis, Eugenia McNaughton,  
and Karen Schwinn  
(U.S. Environmental Protection Agency)**

**William Beckon, Thomas Maurer, Kim Forrest,  
and Dennis Woolington  
(U.S. Fish and Wildlife Service)**

**Dan Nelson and Frances Mizuno  
(San Luis & Delta-Mendota Water Authority)**

**Chris Eacock, julie Eldredge, john Field, Tim  
McLaughlin and Victor Stokmanis  
(U.S. Bureau of Reclamation)**

**jeanne Chilcott, gail Cismowski,  
joe Karkoski, and Rudy Schnagl  
(California Regional Water Quality  
Control Board)**

**Theresa Presser, Neal Dubrovsky, je grant,  
Steve Schwarzbach and Mark Woloszyk  
(U.S. geological Survey)**

## Project Description

The Project prevents discharge of subsurface agricultural drainage water into wildlife refuges and wetlands in central California. The drainage water is conveyed instead through a segment of the San Luis Drain to Mud Slough, a tributary of the San Joaquin River. The Project improves water quality in the wildlife refuges and wetlands, sustains the productivity of 97,000 acres of farmland, and fosters cooperation between area farmers and regulatory agencies in drainage management reduction of selenium, boron, and salt loading.

## Work Products

Monthly, quarterly, and annual reports

## Plans for 2012

Complete all 2012 deliverables as soon as data are available. Additional summary chapter for annual report written by SFEI. Possibly shorter report (fact sheet) with feature article and data highlights.

All data will be uploaded into CEDEN.

## Recent Findings and Publications

Annual Report 2008-09 was published in October 2011.

This project continues to monitor impacts of the use of a portion of the San Luis Drain for conveyance of agricultural discharge. SFEI collects and disseminates data generated by the participating institutions.

Monthly, quarterly, and annual data reports are currently presented on a web page for USBR and public data users.

*B. Landscape Ecology***Statistical Design & Analysis for the Guadalupe River Streams Assessment: Technical Support Services**

PROJECT CODE  
**40xx**

START DATE  
**1/1/12**

ANTICIPATED COMPLETION  
**12/31/12**

TOTAL FUNDING  
**\$72,998**

FUNDING FOR SFEI LABOR  
**\$67,288**

FUNDING FOR 2012 SFEI LABOR  
**\$50,059**

STATUS  
**Proposal (80% probability of funding)**

DIRECT CLIENT  
**Santa Clara Valley Water District (SCVWD)**

PRIMARY CLIENT  
**Same**

LEAD SCIENTIST  
**josh Collins**

PROJECT MANAGER  
**Sarah Lowe**

COLLABORATORS  
**None**

**Project Description**

This project will provide scientific and technological services during 2011-12 in support of the Santa Clara Valley Water District's assessment of stream condition in the Guadalupe River Watershed. This is mainly a science and technology transfer project. It is an extension of a similar SFEI-ASC project to help assess stream condition in the Coyote Creek Watershed (Ecological Monitoring and Assessment

Framework 2009-2011). SFEI will help the District with assessment design, training for data collection, data analyses, and the process of developing management recommendations. In a strategic sense, this project is an opportunity to further test the efficacy of the monitoring and assessment framework and toolset developed by SFEI-ASC to support the proposed regional and state stream and wetland protection policies.

**Work Products**

- Guidance document for developing management questions
- Analyses of stream and riparian extent
- Probabilistic sample design
- BAARI and CRAM training
- Report on stream condition
- Guidance document to frame alternative management actions

**Plans for 2012**

This project will be completed by the end of 2012.

**Recent Findings and Publications**

N/A

**Project Status**

The project proposal was submitted to the Santa Clara Valley Water District on November 16th 2011. SFEI should hear if the proposal was accepted by mid-December.

**South Coast Wetland Change Analysis Phase 1**

PROJECT CODE  
**7084**

START DATE  
**7/1/11**

ANTICIPATED COMPLETION  
**3/15/12**

## TOTAL FUNDING

**\$58,940**

## FUNDING FOR SFEI LABOR

**\$58,940**

## FUNDING FOR 2012 SFEI LABOR

**\$39,360**

## STATUS

**Active**

## DIRECT CLIENT

**SCCWRP**

## PRIMARY CLIENT

**USFWS**

## LEAD SCIENTIST

**Robin grossinger**

## PROJECT MANAGER

**Kristen Cayce**

## COLLABORATORS

**SCCWRP, CSUN**

## Project Description

In partnership with SCCWRP and CSU Northridge (CSUN), this project will build upon work performed last year that georeferenced, digitized, and quantified estuarine habitats along the Southern California coast from the US Coast Survey T-sheets. Previous work focused on half (26 T-sheets) of the historical estuarine landscape. This project will complete the remaining 25 T-sheets using the methodology established in the 2011 to produce a complete historical picture of estuarine habitat along the Southern California Coast from Point Conception to the US/Mexico border. Analysis of wetland extent and distribution will provide an understanding of the historical landscape mosaic that existed on the South Coast informing current-day restoration.

In addition, this project will compare past and present extent and distribution of estuarine habitat a change analysis performed in GIS. CSUN will be finishing a 4-year project to update the National Wetland Inventory (NWI) of existing habitat. This contemporary layer along with the habitats mapped from the T-sheets will be used to conduct the change analysis. A technical memo documenting the change

analysis process and results, including updates to figures and graphs from the T-sheet Atlas will be an output of this project.

## Work Products

- 25 georeferenced T-sheets
- Geodatabase of Southern California Coast historical estuarine habitats
- Updated 'US Coast Survey Maps of California' website with GIS layers
- Technical memo discussing change analysis methods and results including updates to distribution of coastal habitats to include new data.

## Plans for 2012

T-sheet georeferencing, T-sheet digitization, and classification crosswalk

## Recent Findings and Publications

Grossinger, RM, ED Stein, KN Cayce, RA Askevold, S Dark, and AA Whipple 2011. Historical Wetlands of the Southern California Coast: An Atlas of US Coast Survey T-sheets, 1851-1889. San Francisco Estuary Institute Contribution #586 and Southern California Coastal Water Research Project Technical Report #589.

US Coast Survey Maps of California website  
[[www.caltsheets.org](http://www.caltsheets.org)]

## Project Status

SFEI's subcontract was finalized in Oct 2011. SFEI has since subcontracted to John Cloud (NOAA) to deliver digital scans of T-sheets. Project coordination with SCCWRP and CSUN has been ongoing.

## CIAP WL Monitoring Tool Kit

PRoJECT CoDE

**8405**

START DATE

**5/20/11**

ANTICIPATED CoMPLETIoN

**4/30/13**

ToTAL FUNDINg

**\$795,000**

FUNDINg FoR SFEI LABoR

**\$392,990**

FUNDINg FoR 2012 SFEI LABoR

**\$206,900**

STATUS

**Active**

DIRECT CLIENT

**California Natural Resources Agency**

PRIMARy CLIENT

**Bureau of ocean Energy Management,  
Regulation, and Enforcement (BEMRE)**

LEAD SCIENTIST

**josh Collins**

PRoJECT MANAgER

**Sarah Lowe**

CoLLABoRAToRS

**Southern California Coastal Water Research  
Project, Moss Landing Marine Laboratories,  
California Coastal Commission, Roberts  
Environmental and Conservation Planning  
LLC**

### Project Description

This project will further develop and implement the three-level toolkit for assessment and tracking of California's wetlands and riparian areas. Level 1 involves landscape level analyses using Geographic information systems (GIS) and remote sensing. Level 2 is application the California Rapid Assessment Method (CRAM) for rapid field assessments of wetland health or condition. And Level 3 monitoring entails intensive assessment of ecological function or

specific aspects of wetland condition. These tools will support statewide adoption of the Wetlands Regional Assessment Monitoring Programs (WRAMPs) as called for by the emerging state Wetland and Riparian Area Protection Policy (WRAPP).

The project has three elements. 1) Enhancement of IT tools used for wetlands data management - Wetland Tracker and eCRAM; 2) development and calibration of the depressional wetlands module for California Rapid Assessment Methodology (CRAM); and 3) a North Coast Demonstration of the 1-2-3 monitoring framework in a selected watershed.

### Work Products

- Improved CRAM database, CRAM reporting tools, eCRAM software and CRAM manuals.
- Upgraded Wetland Tracker with improved ease of use including online map editing and online project data entry forms.
- Improved reporting of habitat condition through CRAM and Wetland Tracker including results visualization.
- Calibrated CRAM modules for depressional wetland systems.
- Report on wetlands condition for demonstration watershed in the North Coast region

### Plans for 2012

Work has begun on IT development work. Detailed task workplans for the other project elements will be drafted and finalized early in 2012. Work on the Depressional CRAM Module Refinement and the North Coast Demonstration will begin. Workgroup meetings with statewide partners will be held throughout the year to review and advise on work elements. Field work is expected in 2012. Significant project deliverables will likely not be completed until 2013.

### Recent Findings and Publications

N/A

## Project Status

Work on this project was started in 2011. Subcontracts for project collaborators drafted but not final.

## CRAM Manual Updated & L2 Committees

PROJECT CODE

**4080**

START DATE

**10/1/10**

ANTICIPATED COMPLETION

**9/30/13**

TOTAL FUNDING

**\$44,250**

FUNDING FOR SFEI LABOR

**\$44,250**

FUNDING FOR 2012 SFEI LABOR

**\$10,313**

STATUS

**Active**

DIRECT CLIENT

**SJSURF**

PRIMARY CLIENT

**EPA**

LEAD SCIENTIST

**Josh Collins**

PROJECT MANAGER

**Sarah Lowe/Cristina grosso**

COLLABORATORS

**CCWG / SCCWRP**

## Project Description

A crucial component of a comprehensive statewide wetland assessment program is the development of a process to support the additional development and refinement of all validated CRAM modules. This core element of the assessment toolkit is urgently needed to facilitate the on-going development of wetland

assessment programs and smooth implementation of existing statewide programs. To accomplish this, the following activities are proposed: project administration and reporting; annual standardization of CRAM materials; coordination of CRAM training materials across the State; and manage the QA process and support biannual events for CRAM development team. Tasks are shared among several collaborators in each region, with CCWG taking the lead on project administration and technical coordination.

## Work Products

Work products include:

- Formal CRAM manual independent of field books
- expanded descriptions and definitions necessary for standardized scoring of CRAM attributes and metrics for all validated modules
- annually updated CRAM manual and field books for three modules
- annual minor updates to eCRAM for three modules
- annually updated CRAM plant list
- continuously updated CRAM website
- annual update of CRAM training powerpoints based on manual and field book updates
- participation in biannual events for the CRAM development team

## Plans for 2012

The project's plans for 2012 include incorporating major updates to CRAM manual, expanding CRAM descriptions and definitions, incorporating updates to the CRAM manual and field books, eCRAM, and plant list on an annual basis, updating the CRAM website as needed, preparing a standardized set of CRAM training powerpoints that will be updated on an annual basis, compiling regional photo inventories of common plants and indicators, conducting field verification/audits sites for each region of the State, and holding biannual meetings of the CRAM

PI team. SFEI staff will assist in the updating of eCRAM, the eCRAM plant list, and the CRAM website, and will take part in the regional team meetings to be held twice annually.

## Recent Findings and Publications

California Wetlands Monitoring Workgroup (CWMW). 2009. Using CRAM (California Rapid Assessment Method) to Assess Wetland Projects as an Element of Regulatory and Management Programs. 46 pp.

Sutula, M., J. Collins, A. Wiskind, C. Roberts, C. Solek, S. Pearce, R. Clark, A.E. Fetscher, C. Grosso, K. O'Connor, A. Robinson, C. Clark, K. Rey, S. Morrisette, A. Eicher, R. Pasquinelli, M. May and K. Ritter. 2008. Status of Perennial Estuarine Wetlands in the State of California. Final Report to the Surface Water Ambient Monitoring Program. 57 pp.

## Project Status

SFEI has assisted in periodic updates to the CRAM manual and eCRAM, and has participated in the two biannual CRAM development team meetings.

## Montezuma Technical Review Team (TRT)

PROJECT CODE  
**4044**

START DATE  
**4/1/04**

ANTICIPATED COMPLETION  
**9/1/11**

TOTAL FUNDING  
**\$54,945**

FUNDING FOR SFEI LABOR  
**\$46,138**

FUNDING FOR 2012 SFEI LABOR  
**\$29,378**

STATUS  
**Active**

## DIRECT CLIENT

**Montezuma Wetlands LLC**

## PRIMARY CLIENT

**Same**

## LEAD SCIENTIST

**josh Collins**

## PROJECT MANAGER

**Sarah Lowe**

## COLLABORATORS

**Robert Batha, SF Bay Conservation and Development Commission, Andree Breaux, SF Bay Regional Water Quality Control Board, Jane Hicks, USACE, Eric Polson, private consultant, Karl Malamud-Roam, Contra Costa County Mosquito Abatement District, Howard Shellhammer, San Jose State University, Bruce Herbold and Paul Jones, USEPA, Joe Didonato, East Bay Parks District, Jay Davis and Ben Greenfield and Don Yee and Cristina Grosso, SFEI, Steve Culberson, DWR**

## Project Description

The Montezuma Project is a for-profit venture to restore 2,500 acres of brackish tidal marsh in the western Delta using dredged sediment. SFEI partners with the project sponsor to lead the technical team for independent scientific review and interpretation of the project monitoring effort and resulting data for the 20-30 year life of the project. SFEI renegotiates the contract each year. This project is a test case for large-scale re-use of dredged sediment. This project continues the planned part of the regional monitoring program that provides advice and review for local and regional monitoring efforts. Efforts on this project have been hampered by limited availability of dredged sediment.

## Work Products

The TRT provides written comments to the Montezuma Management Team on scientific work.

## Plans for 2012

Services to be performed by the TRT include: (1) Scientific review and comment on technical reports, (2) Planning and holding sub-team meetings that



focus on key issues for the project (e.g., contaminants, high marsh design, least tern habitat, etc). 3) Monitoring plan recommendations that include a biological component.4) Holding an Annual Meeting for the project.

## Recent Findings and Publications

A new Adaptive Management Plan was submitted to the Water Board in 2010 that included five main adaptive management modifications proposed for Montezuma:

- Restoration of tidal action to completed Phase 1 cells;
- Creation of California Least Tern/Snow Plover habitat;
- Modification of High Marsh Design for salt marsh harvest mouse (SMHM);
- Pumping water directly from the Sacramento River/Suisun Bay using approved fish screens;
- An increase in use of non-cover sediment in Phase 1 up to the permitted 20% threshold. The Water Board issued a letter of support for the proposed changes in a letter dated October 7, 2010.

## Project Status

This is an ongoing project with a new contract negotiation annually.

## North San Diego County Lagoons Historical Ecology Study

PROJECT CODE  
**7083**

START DATE  
**5/21/11**

ANTICIPATED COMPLETION  
**1/31/13**

TOTAL FUNDING  
**\$300,000**

FUNDING FoR SFEI LABoR  
**\$239,000**

FUNDING FoR 2012 SFEI LABoR  
**\$89,100**

STATUS  
**Active**

DIRECT CLIENT  
**Coastal Conservancy**

PRIMARY CLIENT  
**Same**

LEAD SCIENTIST  
**Robin grossinger**

PROJECT MANAGER  
**Erin Beller**

COLLABORATORS  
**SCCWRP, CSUN**

## Project Description

The Study will provide critical information for the planning and design of several important coastal wetland restoration projects, including San Elijo and Buena Vista lagoons. There is currently little available information about the natural structure and function of the coastal wetland systems in this area. To address this need, the project team (SFEI, SCCWRP, and California State University Northridge) will develop new information about the historical habitat mosaics, hydrology, and native species assemblages that characterized these systems, through a rigorous analysis of historical documents. The Study will build on the first regional assessment of historical wetland habitat types and distribution, the South Coast T-sheet Atlas.

Work Products  
GIS products, technical report, public presentations

Plans for 2012  
Data collection and initial public presentations

Recent Findings and Publications  
N/A

Project Status  
Active

## Historical Ecotone Analysis

PROJECT CODE  
**7089**

START DATE  
**9/27/11**

ANTICIPATED COMPLETION  
**12/31/13**

TOTAL FUNDING  
**\$15,000**

FUNDING FOR SFEI LABOR  
**\$15,000**

FUNDING FOR 2012 SFEI LABOR  
**\$14,740**

STATUS  
**Workplan in development**

DIRECT CLIENT  
**USFWS San Francisco Bay Program**

PRIMARY CLIENT  
**Same**

LEAD SCIENTIST  
**Letitia grenier/Robin grossinger**

PROJECT MANAGER  
**Ruth Askevold**

COLLABORATORS  
**USFWS staff and contractors**

### Project Description

SFEI will assist USFWS and partners in the development of the San Francisco Bay Ecotone Conservation and Management Decision Support System (DSS). In this project, SFEI will work with the US Fish and Wildlife Service and other partners to develop a GIS geodatabase of the historical tidal marsh-land ecotone for a portion of Santa Clara and Alameda counties. The study area will extend from San Francisquito Creek in Palo Alto to approximately

the San Mateo Bridge in Hayward. The geodatabase will be based on a synthesis of completed and current historical ecology studies for the Alameda Creek area, Coyote Creek area, and West Santa Clara Valley area. SFEI will synthesize these data to create a new data set documenting the distribution and abundance of different ecotone transitions along the inland margin of tidal marshland in this part of the San Francisco Bay. Habitat restoration, protection, assessment and prioritization work completed through this agreement will benefit the people of the United States by furthering restoration and protection of public trust resources, including migratory birds and federally threatened and endangered species, and inter-jurisdictional fish.

### Work Products

- Develop a GIS geodatabase of the historical tidal marsh-land ecotone for a portion of Santa Clara and Alameda counties extending from San Francisquito Creek in Palo Alto to approximately the San Mateo Bridge in Hayward.
- Synthesize these data to create a new data set documenting the distribution and abundance of different ecotone transitions along the inland margin of tidal marshland in this part of the San Francisco Bay.
- SFEI will work with the USFWS team to define the historical ecotone classes in relation to available historical data and contemporary classification, to maximize the ability to crosswalk historical and modern data
- Carry out an initial spatial analysis to describe the relative extent of different historical ecotone types in the study area and their relationship to the physical setting.
- Compile datasets and map and include with a final report describing project, methods, and results. [text here](#)

### Plans for 2012

- Develop classification approach for historical tidal marsh ecotone.

- Create geodatabase of the historical tidal marsh ecotone for study area.
- Carry out initial spatial analysis and summary technical memorandum.
- Produce GIS layers of historical ecotone for the study area and brief technical memorandum describing an initial analysis of the historical distribution and abundance of different ecotone types.

Recent Findings and Publications  
N/A

Project Status  
Active

## Alameda Creek Historical Ecology Study

PROJECT CODE  
**7062**

START DATE  
**12/12/08**

ANTICIPATED COMPLETION  
**12/31/12**

TOTAL FUNDING  
**\$425,850**

FUNDING FOR SFEI LABOR  
**\$413,850**

FUNDING FOR 2012 SFEI LABOR  
**\$61,744**

STATUS  
**Active**

DIRECT CLIENT  
**Alameda County**

PRIMARY CLIENT  
**San Francisco Public Utilities Commission;  
Alameda Flood Control and Water  
Conservation District**

LEAD SCIENTIST  
**Robin grossinger**

PROJECT MANAGER  
**Ruth Askevold**

COLLABORATORS  
**Alameda County Resource Conservation  
District, Laurel Collins (Watershed Sciences),  
Rob Leidy (EPA)**

### Project Description

The Alameda Creek Historical Ecology Study will assess watershed conditions prior to significant Euro-American modification, as a basis for understanding subsequent changes in watershed structure and function, and potential options for future environmental management. The geographic focus is the floodplains, valleys, and alluvial plains adjacent to Alameda Creek (to the diversion dam) and its tributaries. This includes the Livermore and Amador valleys, Sunol Valley and Niles Canyon, and the Niles cone and adjoining baylands. A pilot portion of the project will also focus on documenting landscape changes in the uplands of the San Antonio Creek watershed.

The project is designed to support several current planning efforts, including the Alameda Watershed Habitat Conservation Plan, Alameda County flood control planning, the South Bay Salt Pond Restoration Project, the Alameda Creek Watershed Council, and to advance public engagement in the watershed.

### Work Products

A final deliverable will include a fully illustrated report on project findings. A separate executive summary will be developed and published.

### Plans for 2012

This project will be completed in 2012. We anticipate completing the draft of the project report in February 2012, and have developed a technical review team. The final report will be published in the first or second quarter of 2012.

### Recent Findings and Publications

We recently presented project findings at the annual meeting of Alameda Creek Watershed Council.

## Project Status

The project report will be completed in the first half of 2012. We are discussing with the client possible future steps

## Joint Fire Science Project

PROJECT CODE

**7080**

START DATE

**3/1/11**

ANTICIPATED COMPLETION

**12/31/12**

TOTAL FUNDING

**\$79,665**

FUNDING FOR SFEI LABOR

**\$60,865**

FUNDING FOR 2012 SFEI LABOR

**\$38,118**

STATUS

**Active**

DIRECT CLIENT

**National Park Service**

PRIMARY CLIENT

**Same**

LEAD SCIENTIST

**Chuck Striplen**

PROJECT MANAGER

**Chuck Striplen**

COLLABORATORS

**BLM, NPS Pinnacles NM, UC Berkeley, Amah Mutsun Tribal Band**

## Project Description

SFEI will oversee and implement a fire history study at a number of study locations from southeast San Benito County to northwest Santa Cruz County, including National Park lands, State park lands, BLM lands, and private property. This is one element of a larger study on Ethno-ecological fire traditions. Other

elements include a phytolith study and archaeological field school in PNM.

## Work Products

- Collaboratively undertake a study titled 'Exploring the Traditional Use of Fire in the Coastal Mountains— Dendroecological and historical ecology components' of Central California
- Extract fire scar samples from two sites within the JFSP study area (Scott and Waddell Creeks).
- Determine historic fire frequency from two watersheds within the AMTB territory (Scott and Waddell Creeks).
- Collect, assemble, and orthorectify the earliest available aerial photography for the project sites (Pinnacles National Monument, and the Scott and Waddell Creek watersheds).
- Collect, assemble, and georeference historic maps for the project sites (Pinnacles National Monument, and the Scott and Waddell Creek watersheds).
- Assist in the development of status and final reports that relate to the tasks identified within this task agreement that are consistent with Joint Fire Science Program requirements.

## Plans for 2012

Phase 1 HE data assembly; summary of fire scar dendroecology collection progress

## Recent Findings and Publications

N/A

## Project Status

Active

## C. Environmental Data Information & Technology

### SBSP gIS Coastal Conservancy

PRoJECT CoDE  
**6509**

START DATE  
**8/1/04**

ANTICIPATED CoMPLETioN  
**6/30/13**

ToTAL FuNDINg  
**\$491,000**

FUNDINg FoR SFEI LABoR  
**\$481,000**

FUNDINg FoR 2012 SFEI LABoR  
**\$21,330**

STATUS  
**Active**

DIRECT CLIENT  
**Coastal Conservancy**

PRIMARy CLIENT  
**Same**

LEAD SCIENTIST  
**Mike May**

PRoJECT MANAgER  
**Same**

CoLLABoRAToRS  
**none**

#### Project Description

SFEI administers the SBSP website and Shoreline Study website for the Coastal Conservancy and Army Corps. For 2012, the sites will be maintained, with design, document processing, and site organization work as needed and requested. The SBSP electronic bulk mailing lists, and the SBSP online photo archive will continue to be operated, maintained and improved. The final element of SFEI's services is to maintain the Project's spatial data holdings.

#### Work Products

Up-to-date websites at <http://www.southbayrestoration.org> and <http://www.southbayshoreline.org>

Bulk emails send to 2,500-member SBSP list as requested

Up-to-date Photo archive at <http://photos.southbayrestoration.org>

#### Plans for 2012

Maintain the SBSP website as a repository of visitor information, public meetings, restoration progress reports, requests for proposals, the Project photo archive, and related information.

Maintain the Project's spatial data holdings, including fulfilling data requests as requested.

#### Recent Findings and Publications

Main website: <http://www.southbayrestoration.org>

Photo archive: <http://photos.southbayrestoration.org>

#### Project Status

Ongoing. Renewal expected in 2013.

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### Riparian Buffer Width Tool

PRoJECT CoDE  
**4081**

START DATE  
**6/1/11**

ANTICIPATED CoMPLETioN  
**1/30/14**

ToTAL FuNDINg  
**\$500,000**

FUNDINg FoR SFEI LABoR  
**\$418,792**

FUNDINg FoR 2012 SFEI LABoR  
**\$178,603**

STATUS  
**Active**

## DIRECT CLIENT

**SWRCB**

## PRIMARY CLIENT

**SWRCB**

## LEAD SCIENTIST

**josh Collins / Kristen Cayce**

## PROJECT MANAGER

**Sarah Lowe**

## COLLABORATORS

**Andy Richardson, GIS developer, Independent contractor**

## Marin County Flood Control District

### Project Description

With Prop 50 funding, The State Water Resources Control Board (SWRCB) has contracted with SFEI to develop a decision support tool (DST) to assist local agencies in determining ecologically significant and scientifically-based riparian buffer widths (RBW). This DST will be developed through extensive literature review, oversight and advice from a technical advisory team (TAT), and field validation. This project will enhance SFEI's existing riparian mapping areas tool (RAMT) to include fluvial geomorphic and additional water quality functions of interest to SWRCB. These additional modules will produce an estimated buffer width required to maintain specific riparian functions. Vetting and testing of the DST will be done in collaboration with Marin County Flood Control District to understand how the DST may help District employees and be expanded to meet similar needs for other agencies. Through several meetings with the TAC, conceptual models for the fluvial geomorphic and shade modules will be vetted, along with field validation techniques. The field effort in this project will be designed to validate or improve the model and if possible, contribute to existing regional curve efforts. The final component of this project will be outreach to the DST users, local agencies in the Bay-Delta region. One to two workshops will be held to demonstrate the DST applicability in environmental planning and management and provide training on the tool. A website will also be developed and hosted to provide access to the DST and project information.

### Work Products

- Riparian Buffer Width Decision Support Tool and necessary documentation
- TAC roster, meeting schedule, and meeting notes
- Outreach materials
- Documentation of field work methods
- Website

### Plans for 2012

Hold TAT meetings to discuss existing science, gaps in science, and methodological review

Begin planning field work and tool development

### Recent Findings and Publications

This tool will enhance SFEI's existing riparian mapping areas tool. [[www.sfei.org/baari/riparian](http://www.sfei.org/baari/riparian)]

### Project Status

The Performance Assessment and Compliance Plan has been completed. SFEI, Marin Co, and SWRCB have been participating in on-going project coordination.

## Data Management for Eelgrass Project

### PROJECT CODE

**6527**

### START DATE

**11/1/11**

### ANTICIPATED COMPLETION

**9/30/12**

### TOTAL FUNDING

**\$22,290**

### FUNDING FOR SFEI LABOR

**\$22,290**

### FUNDING FOR 2012 SFEI LABOR

**\$16,536**

STATUS  
**Active**

DIRECT CLIENT  
**SCCWRP**

PRIMARY CLIENT  
**National Marine Fisheries Service**

LEAD SCIENTIST  
**Cristina grosso**

PROJECT MANAGER  
**Cristina grosso**

COLLABORATORS  
**SCCWRP**

## Project Description

This project will add the South Coast regional eelgrass surveys and information for 75 eelgrass mitigation projects into the Wetlands Portal.

## Work Products

Products for this project include: (1) upload basic eelgrass information to the Wetlands Portal as provided by SCCWRP; (2) incorporate maps from existing regional eelgrass surveys into the Portal; (3) incorporate data from 75 existing regional eelgrass mitigation projects into the Portal; and (4) modify the Portal's interface to display eelgrass data in the South Coast region.

## Plans for 2012

In 2012, basic eelgrass information and additional eelgrass mitigation projects will be uploaded to the Wetlands Portal.

## Recent Findings and Publications

In 2011, the South Coast regional eelgrass surveys layer and 15 eelgrass mitigation projects were uploaded to the Wetlands Portal.

Project Status  
**Active**

## IRWMP Prop 84 Flood Infrastructure & DAC

PROJECT CODE  
**65xx**

START DATE  
**4/1/12**

ANTICIPATED COMPLETION  
**3/31/15**

TOTAL FUNDING  
**\$655,000**

FUNDING FOR SFEI LABOR  
**\$655,000**

FUNDING FOR 2012 SFEI LABOR  
**\$90,341**

STATUS  
**In Negotiation**

DIRECT CLIENT  
**DWR**

PRIMARY CLIENT  
**DWR**

LEAD SCIENTIST  
**Meredith Williams**

PROJECT MANAGER  
**Kristen Cayce**

COLLABORATORS  
**SFEP, Bay Area Association of Flood Protection Agencies (BAAFP), Environmental Justice Coalition for Water (EJCW)**

## Project Description

The San Francisco Estuary Institute in partnership with BAAFPAA will gather, compile and standardize existing flood infrastructure data into a Geographic Information System (GIS) database. The database will build upon the existing Statewide Levee Database and the existing Army Corps of Engineers Levee Database, but will map a broader range of flood protection and stormwater facilities and information. The result will be a regional and standardized dataset of flood infrastructure for the SF Bay region and the information will provide a foundation for the



Statewide Flood Needs Assessment. This critical information will be provided to flood managers and planners through an on-line interactive map.

Specific flood risk information will be collected for a disadvantaged community (DAC) in Richmond by EJCW under a separate Prop 84 grant. Data from that effort will be integrated into the regional website as a pilot of targeted flood risk analysis for Bay communities.

## Work Products

- GIS database of flood infrastructure data
- Protocols for standardizing existing data and development of new data
- Website to access flood infrastructure data and DAC flood risk analysis

## Plans for 2012

Identify priority flood infrastructure datasets through meetings with BAAFPA members. Assess the extent and quality of existing data.

## Recent Findings and Publications

N/A

## Project Status

In negotiation, anticipated start in Q1 2012.

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## D. Internally Funded Projects

### Communication Plan

PROJECT CODE  
**overhead**

START DATE  
**1/3/2012**

ANTICIPATED COMPLETION  
**6/30/2012, ongoing**

TOTAL FUNDING  
**(included in Administrative Expense budget)  
\$25,000**

STATUS  
**Active**

DIRECT CLIENT  
**SFEI/ASC Board of Directors and Staff**

PROJECT MANAGER  
**Kelleen griffin**

#### Project Description

Existing staff (Kelleen Griffin, Linda Wanczyk, Joanne Cabling, Jeff Mueller) will develop and launch a communications audit in Q1, 2012. Funding will be used for consulting expertise and for resources and materials.

#### Work Products

- Communication Audit
- Survey Results
- Communication Plan

#### Plans for 2012

Pursuant to the new Strategic Plan approved in September, 2011, Goal #3 focuses on Communications and Outreach. This is a multi-layered project encompassing all internal and external communications of SFEI/ASC. We will develop a working team to assess all existing forms of communications utilized by SFEI/ASC Board and Staff. These will include:

- Print publications – SFEI has an extensive catalogue of scientific content, and we will evaluate how accessible that content is, determine its usability in its current form, and recommend potential re-packaging and alternative methods of distribution.
- Online communications – this includes funding to re-assess our website content, usability, access, and relevance.
- Meeting and conference materials – coordination of all SFEI/ASC staff conference speeches, keynotes, and other addresses
- Media relations and public relations materials – development of basic “marketing” and fundraising tools and collateral (see Funding Models and Fundraising section below).
- Legal and legislative documents – all HR files will be audited for compliance, the Employee Handbook updated and revised as needed.
- Incoming communications – this includes procedures for our new downstairs reception area, our voice mail content, etc.
- Committee and Board communications – development of internal procedures, including check-lists and timelines for communications with our Board and three Committees.
- Organizational identity materials – assessment and recommendations on the value of our existing logo, letterhead, envelopes, business cards.
- Surveys - the use of surveys in the course of normal business operations is an accepted and helpful practice. SFEI/ASC will develop surveys for internal and external purposes to gain clarity on such things as funders’ needs from our research in the short- and long-term, employees’ preferences for benefits, etc.
- Recognitions, awards, certificates – a “traditionally” underutilized and important component of work achievement, a recognition program will be implemented.

- Annual Reports, signage, speeches, invoices, and contracts and other areas for review.

## Improved Software Development Methods and Development Partnerships for Improved Understanding of Environmental Science outcomes

PROJECT CODE  
overhead

START DATE  
1/3/2012

ANTICIPATED COMPLETION  
10/31/2012, on-going

TOTAL FUNDING  
(included in Administrative Expense budget)  
\$10,000

STATUS  
Active

DIRECT CLIENT  
SFEI/ASC Board of Directors and Staff

PROJECT MANAGER  
Meredith Williams

### Project Description

The EDIT team has worked over the last two years to improve software and technology development processes. We are beginning to adopt more industry-standard approaches. For example, web development firms frequently rely on rapid prototyping and iterative release cycles in order to maintain flexibility, work within budgets, and speed development. Another key change will be an increased emphasis on user feedback for our products and deliverables. SFEI staff have invested some unbillable time researching these new approaches and will continue to expend some unbillable time to work with these new methods. Project funding is being used as appropriate, but additional funding may be needed.

SFEI has begun to partner with the Stanford Spatial

History library to adapt existing visualization tools and develop new tools to improve understanding of SFEI data and results in compelling ways. We want to take advantage of Stanford's expertise in portraying environmental science results to build in-house capacity as well as to learn from their experience. Staff time will be needed to compile data sets, define visualization requirements, and partner during software development. Funding exists within the Delta Landscapes project for some of this work, but other projects and interactions may not be funded. These efforts will feed into the Communication Plan outlined above.

## Evaluation of Funding Models and Fundraising

PROJECT CODE  
overhead

START DATE  
1/3/2012

ANTICIPATED COMPLETION  
10/31/2012, on-going

TOTAL FUNDING  
(included in Administrative Expense budget)  
\$22,000

STATUS  
Active

DIRECT CLIENT  
SFEI/ASC Board of Directors and Staff

PROJECT MANAGER  
Kelleen griffin

### Project Description

Kelleen Griffin will continue to research appropriate funding models for SFEI / ASC to alleviate the overreliance on public funding, and in particular develop a strategy to attract funding for "good overhead" – i.e. capacity building grants.

### Work Products

- Marketing Collateral

- Targeted Lists of Potential Funders
- Presentation and Pitch Books
- Meetings with Potential Funders

### Plans for 2012

Funding for SFEI / ASC is overly dependent on state and federal sources, and this poses a particular risk to the organization's sustainability. In order to mitigate the risk, alternative routes of funding need to be identified. Capacity building grants and social venture funds exist and we will determine their suitability for SFEI / ASC during this process.

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## aquatic SciEncE cEntEr

### A. Clean Water

#### Nutrient Strategy BACWA

PRoJECT CoDE

**8105**

START DATE

**11/1/11**

ANTICIPATED CoMPLETIoN

**4/30/12**

ToTAL FUNDINg

**\$60,000**

FUNDINg FoR SFEI LABoR

**\$60,000**

FUNDINg FoR 2012 SFEI LABoR

**\$48,030**

STATUS

**Part 1 active (2011 -\$10,000) with Part 2 a high probability (~\$50,000, in negotiation)**

DIRECT CLIENT

**BACWA**

PRIMARy CLIENT

**Same**

LEAD SCIENTIST

**David Senn**

PRoJECT MANAgER

**Meg Sedlak**

CoLLABoRAToRS

**Region 2 Water Quality Control Board, BACWA**

#### Project Description

Over the last year, the potential for adverse effects of nutrient loads to San Francisco Bay has become a topic of increasing concern. In recent months, work has commenced to develop a Nutrient Strategy for the Bay. A main goal of the Strategy is to lay out a well-reasoned and cost-effective program to generate

the scientific understanding needed to fully support major management decisions related to nutrients.

In its current form, the Nutrient Strategy has four main work elements: i) defining the problem; ii) monitoring program development and implementation; iii) developing a nutrient assessment framework; iv) developing a modeling strategy that can be used to assess potential impacts of various management actions. The strategy also includes reference to the need to evaluate policy tradeoffs of implementing nutrient controls (e.g., increased greenhouse gas emissions associated with higher nitrogen removal efficiencies), but no such work elements have to date been included in the strategy workplan. A related goal of BACWA and the Region 2 Water Board is to develop a longer-term collaborative nutrient management plan that establishes a clear path forward to address regulatory issues. The Nutrient Strategy is specifically intended to integrate across its various activities, acknowledging their shared overarching goals. There is also a clear need for communicating the progress of implementation to a broad community of interested entities.

At the request of Region 2 Water Board, and with funding from BACWA, the ASC and SFEI will continue to assist in developing the Nutrient Strategy for San Francisco Bay, and begin work on priority tasks. The purpose of this project is to

- 1) Generate a more detailed scope of work to support the nutrient strategy, through discussions with stakeholders and regional and national experts;
- 2) Coordinate and communicate with various partners, collaborators and stakeholders;
- 3) Develop a work element that focuses on evaluating trade-offs and synergies associated with various policies or management strategies; and
- 4) Identify potential structures to govern strategy implementation.

**Work Products**

Expanded Nutrient Strategy, with detailed scopes of work for major tasks. Tools (website, list-serve) for communicating relevant information on nutrients and progress on nutrient strategy to partners, including Region 2 Water Board, BACWA, other dischargers and interested parties. Regular update meetings with Water Board, BACWA, and other partners

**Plans for 2012**

Information gathering across the Region (Bay, Delta, and Central Valley) about relevant project and initiatives, and identifying partners. Working closely with Region 2 Water Board, BACWA, and other partners on further developing the Nutrient Strategy.

**Recent Findings and Publications**

- There is a growing body of evidence that suggests the historic resilience of San Francisco Bay to the harmful effects of nutrient enrichment is weakening.
- Since the late 1990s, regions of the Bay have experienced significant increases in phytoplankton biomass (30-105% from Suisun to South Bay) and significant declines in DO concentrations (2.0 and 4.0 % in Suisun Bay and South Bay, respectively).
- USGS has found declining suspended sediment in the Bay – however, no data are available for shallow subtidal regions
- Bay water quality objectives related to nutrients are limited to un-ionized ammonia and dissolved oxygen
- There are outstanding questions about the role and importance of ammonium with respect to beneficial use impairment.

**Project Status**

Project start date was November 2011. Meetings with partners and information gathering are planned for November-December 2011, and a meeting with BACWA Board and Region 2 Water Board staff is planned for December 15 2011

## North Bay Mercury Biosentinel Monitoring

PROJECT CODE

**8252**

START DATE

**6/23/11**

ANTICIPATED COMPLETION

**12/31/13**

TOTAL FUNDING

**\$199,941**

FUNDING FOR SFEI LABOR

**\$73,681**

FUNDING FOR 2012 SFEI LABOR

**\$20,610**

STATUS

**Active**

DIRECT CLIENT

**State Coastal Conservancy**

PRIMARY CLIENT

**Same**

LEAD SCIENTIST

**Letitia grenier**

PROJECT MANAGER

**Sarah Lowe**

COLLABORATORS

**UC Davis****Project Description**

The State Coastal Conservancy (SCC) has requested wetland restoration mercury (Hg) biosentinel monitoring for the North Bay region (including the Napa-Sonoma Marshes, Hamilton Project, Petaluma Marsh, and appropriate control or reference locations). This project will convene a Science Advisory Group (SAG) to provide advice and review on study design, data analysis, and interpretation. The project also includes sampling biosentinel species appropriate to each wetland type for mercury exposure, project and data management, data analyses, and reporting. The study design will be developed with advice and review of the regional stakeholders from agencies involved

in tidal wetland restoration. Field and laboratory work will include collection of small fish (and possibly other Biosentinel birds or invertebrates) and their preparation and analysis for Hg. The data generated from this project will be made available through SFEI's Regional Data Center (RDC). The project will be completed in December 2013.

#### Work Products

- SAG meeting summaries and recommended monitoring designs for wetland restoration using methyl-Hg biosentinels.
- PowerPoint summary of the first year of sampling with initial findings.
- Final project report.
- Project monitoring data to be made available through the regional data center (RDC).

#### Plans for 2012

The field sampling design will be finalized at the end of 2011 and sampling will begin in 2012 and likely carry over into 2013. If funding permits, seasonal sampling may occur, but the SAG recommended that monitoring multiple biosentinel species be a priority over seasonal sampling for monitoring methyl-Hg in a restoration project.

#### Recent Findings and Publications

This project follows the North Bay Small Fish Mercury Project completed by ASC and UC Davis in 2010. Details on that work and the final report are available on the project website: <http://sfei.org/projects/NBaySmallFishHg>.

#### Project Status

The first SAG meeting was held in October 2011 where the project scope was presented and experts recommended monitoring not only fish species but other species appropriate to the wetland habitat being monitored. The project leads are tasked with developing a sampling design that incorporates SAG recommendations and stakeholder input. Sampling will begin in 2012.

## Focused Funding for Central Valley RMPs

PROJECT CODE

**8102**

START DATE

**2/4/10**

ANTICIPATED COMPLETION

**3/31/12**

TOTAL FUNDING

**\$300,000**

FUNDING FOR SFEI LABOR

**\$246,916**

FUNDING FOR 2012 SFEI LABOR

**\$22,100**

STATUS

**Active**

DIRECT CLIENT

**SWRCB**

PRIMARY CLIENT

**Same**

LEAD SCIENTIST

**Thomas Jabusch**

PROJECT MANAGER

**Same**

COLLABORATORS

**Brock Bernstein**

#### Project Description

This project is intended to provide technical, administrative, and science support for planning and implementing a comprehensive regional water quality monitoring program for the Sacramento-San Joaquin Delta (Delta RMP). The initial planning phase of the Delta RMP development has been completed with the preparation of a draft program plan that describes a phased approach consisting of a program pilot, development phase, and the long-term program implementation.

At an initial Delta RMP stakeholder workgroup meeting, consensus was reached that the Central Valley and State Water Boards, assisted by the Aquatic Science Center, would be responsible for coordinating this phase.

## Work Products

Technical Plan describing Regional Monitoring and Assessment Framework and Delta RMP implementation; Program Plan presenting an interim organizational structure, projects, and anticipated organizational budget for the first year of the longterm implementation; "Delta Pulse" report communicating a comprehensive analysis of priority water quality management issues in the Delta (e.g. ammonia, pyrethroids, endocrine disruptors, toxicity).

## Plans for 2012

- Publish second Delta Pulse report (May 2012)
- Develop Technical Plan describing Regional Monitoring and Assessment Framework (including monitoring objectives, governance, initial pilot projects)

## Recent Findings and Publications

Published first Pulse of the Delta in March 2011; submitted a memo to Regional Board staff (that summarizes issues and opportunities for improving monitoring's efficiency and effectiveness and a briefing paper on initial implementation of the Delta RMP; developed a generic workplan for pursuing pilot projects.

## Project Status

Currently preparing the publication of the second Pulse of the Delta and developing a set of pilot projects as part of the initial implementation

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## Delta Water Quality

PROJECT CODE  
**8104**

START DATE  
**12/10/10**

## ANTICIPATED COMPLETION

**5/31/12 (pending project extension by another year)**

TOTAL FUNDING  
**\$197,260**

FUNDING FOR SFEI LABOR  
**\$123,228**

FUNDING FOR 2012 SFEI LABOR  
**\$56,137**

STATUS  
**Active**

DIRECT CLIENT  
**EPA**

PRIMARY CLIENT  
**Same**

LEAD SCIENTIST  
**Thomas jabusch**

PROJECT MANAGER  
**Same**

COLLABORATORS  
**Brock Bernstein**

## Project Description

The purpose of this project is to assess the effectiveness of the current regulatory mechanisms designed to protect water quality in the Sacramento - San Joaquin Delta.

Anticipated project outputs include:

- A synthesis report of public comments regarding water quality issues based on responses to the Advanced Notice of Proposed Rulemaking (ANPR) for Water Quality Challenges in the Bay-Delta Estuary
- A consultation process for investigating water quality issues in more detail, including the effectiveness of Clean Water Act programs
- Conclusions and recommended approaches to better protect water quality focused on aquatic resource designated uses.



- A report, "Pulse of the Delta 2012", which will be produced in cooperation with the Central Valley Regional Water Quality Control Board.

Anticipated outcomes from this project include the following:

- Evidence over a representative period of years and hydrologic conditions of improvements in water quality and long-term environmental conditions.
- Evidence over a representative period of years and hydrologic conditions of water quality improvements on trends toward the recovery of sensitive aquatic species and of the growth, health, fecundity, and/or survival of valued aquatic species and the estuarine food web.
- Long-term improvements are anticipated to result from short-term changes including:
  - o Increased understanding of public awareness and concerns about water quality in the Bay Delta Estuary through the ANPR process.
  - o Prioritizing actions to improve water quality based on public input and existing information.
  - o Better water quality information and management through support for a regional monitoring program.
  - o More focused management of Clean Water Act programs including implementing recommendations for removing impairments to aquatic resource designated uses.

## Work Products

Tech Memos, reports, contributions to the Pulse of the Delta

## Plans for 2012

Conduct consultation process to prioritize issues and develop recommendations; synthesize consultation and recommendations

## Recent Findings and Publications

Prepared a draft report synthesizing responses to the ANPR

## Project Status

Currently preparing contributions to Pulse of the Delta related to the ANPR and planning next steps in the ANPR follow-up process

## SF Bay Exposure Reduction Program

PROJECT CODE

**8350**

START DATE

**7/1/10**

ANTICIPATED COMPLETION

**12/31/12**

TOTAL FUNDING

**\$290,000**

FUNDING FOR SFEI LABOR

**\$230,000**

FUNDING FOR 2012 SFEI LABOR

**\$76,472**

STATUS

**Active**

DIRECT CLIENT

**CDPH/BACWA/WSPA/BASMAA/EBMUD/gWF Power Systems/USS Posco/Rhodiam/enon Energy**

PRIMARY CLIENT

**Same**

LEAD SCIENTIST

**Rainer Hoenicke**

PROJECT MANAGER

**jennifer Hunt**

COLLABORATORS

**CDPH, BASMAA, WSPA, BACWA**

## Project Description

The Mercury TMDL has a provision to develop a

San Francisco Bay Risk Reduction Program to reduce mercury exposure from local sport fish consumption. As part of the San Francisco Bay municipal and industrial waste discharge permits, permittees are required to develop, an exposure reduction program that targets consumers of San Francisco Bay caught fish. The Bay Area Clean Water Agencies (BACWA), industrial dischargers, Bay Area Stormwater Management Agencies Association (BASMAA), and the Western States Petroleum Association (WSPA) are currently being asked by the San Francisco Bay Regional Water Quality Control Board (Water Board) to develop a risk reduction program. The Department of Public Health (DPH) has a MOA with ASC to perform the technical work with ASC staff working in facilitation and coordination of the project.

## Work Products

Exposure reduction framework and a final report

## Plans for 2012

SFEI plans to continue to assist the California Department of Public Health in implementing this project. SFEI will assist writing the final project report in 2012.

## Recent Findings and Publications

N/A

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## B. Landscape Ecology

### Performance Curves & Watershed Profiles

PROJECT CODE

**8251**

START DATE

**1/1/11**

ANTICIPATED COMPLETION

**12/31/13**

TOTAL FUNDING

**\$346,091**

FUNDING FOR SFEI LABOR

**\$233,251**

FUNDING FOR 2012 SFEI LABOR

**\$111,590**

STATUS

**Active**

DIRECT CLIENT

**EPA**

PRIMARY CLIENT

**Same**

LEAD SCIENTIST

**Letitia grenier**

PROJECT MANAGER

**Sarah Lowe**

COLLABORATORS

**SCCWRP/Regional Board - 2**

#### Project Description

An essential element of the California wetland protection strategy is to incorporate watershed profiles and performance curves into the planning and design of mitigation and restoration projects. Performance curves forecast how the beneficial uses and functional capacity of projects can increase over time, and thus represent a significant need for agencies that assess and regulate the condition of California wetlands. The State has developed the tools necessary for creating performance curves and

watershed profiles (i.e., EPA's Level 1-2-3 wetland assessment framework), but the curves and profiles themselves have not been built.

One objective of this project is to develop performance curves using California Rapid Assessment Method (CRAM) for estuarine and coastal riverine systems to show how overall ecological condition, as assessed using CRAM, increases over time and what levels of performance are ultimately achieved by projects, relative to reference conditions. These performance curves will significantly help calibrate public and agency expectations and inform mitigation plans to minimize the risk of temporary losses of wetland functions (due to lags between wetland impacts and compensatory mitigation) or permanent losses (due to unreasonable expectation for project performance).

Another project objective is to develop a watershed profile tool that can be used to quantify acres of wetland types, patch size distribution, total length of creek miles (incl. natural vs. unnatural), channel density, and other ecological attributes that can be used to characterize and better understand the natural resources at a watershed planning scale.

#### Work Products

- White paper detailing approach to performance curves
- Project performance curves developed for estuarine wetlands of the San Francisco Bay Area and for riverine systems of coastal Southern California
- Training guidance for integrating watershed profiles and performance curves into the CA wetland protection strategy

#### Plans for 2012

In 2012 this project will develop performance curves for estuarine and coastal riverine wetlands based on the CRAM. Regional reference sites will be incorporated to calibrate the performance curves to best achievable condition. In addition, online tools for automated watershed profiles (i.e., assessing the distribution, abundance, and size frequency of wetlands and riparian buffers) will be developed to

support mitigation and restoration permitting in the watershed context.

Recent Findings and Publications  
N/A

## Project Status

This project has convened a project workgroup who has outlined the steps to evaluate and develop the performance curves. The watershed profile metrics have been identified and a prototype profile tool is under construction.

## Stream & WL System Protection Policy Support: Technical Advisory Team (TAT)

PROJECT CODE  
**8404**

START DATE  
**10/1/10**

ANTICIPATED COMPLETION  
**11/30/12**

TOTAL FUNDING  
**\$350,000**

FUNDING FOR SFEI LABOR  
**\$197,000**

FUNDING FOR 2012 SFEI LABOR  
**\$81,306**

STATUS  
**Active**

DIRECT CLIENT  
**EPA**

PRIMARY CLIENT  
**Same**

LEAD SCIENTIST  
**josh Collins**

PROJECT MANAGER  
**Sarah Lowe**

CoLLABoRAToRS

**Roberts Environmental & Conservation Planning LLC, Huffman-Broadway group, Inc., ABAG**

## Project Description

This project established and implemented a process of coordination between the technical teams working on recommendations to the State Water Resources Control Board's (SWRCB) Policy Development Team for the Wetland Area Protection Policy (WAPP). This includes the technical teams preparing recommendations on wetland status and trends monitoring, wetland and riparian classification, stream definition, and mapping standards for wetlands and streams. Coordination is a major component of this grant and is achieved by having the teams operate as sub-teams to the overarching Technical Advisory Team (TAT) for WAPP development. ASC chairs that TAT and coordinates and develops technical memos in support of the WAPP development through this project.

Background: The State Water Resources Control Board passed Resolution 2008-0026 for "development of a policy to protect wetlands and riparian areas in order to restore and maintain the water quality and beneficial uses of the waters of the State." To foster greater efficiency, effectiveness, and consistency among State Water Board programs and other State programs, to reverse the trend in wetland loss revealed by recent scientific studies, and to counter a series of U.S. Supreme Court decisions that have destabilized Federal wetland jurisdiction, resulting in less protection for California wetlands. The resolution called for a Policy Development Team within the State Water Board to coordinate with other State and federal agencies and interested stakeholders. The WAPP is being developed in three Phases.

Phase 1 establishes a policy to protect wetlands from dredge and fill activities by establishing the intent of the California Water Boards to protect all waters of the State in coordination with other local, State, and federal agencies and local watershed interests; provide a statewide wetland definition; develop a framework for protecting water quality and beneficial uses at watershed scales; and, provide guidance on tracking

wetland condition and function.

Phase 2 will expand the scope of the policy to protect wetlands from all other activities, other than dredge and fill activities.

Phase 3 will extend the policy's protection to riparian areas.

The TAT works by developing and writing Technical Memoranda on scientific topics related to the WAPP. The Policy Development Team defines the topics to be covered by the TAT. Recent memos include a recommended definition of wetlands as well as methods of wetland delineation, mapping standards in support of assessing wetland health, and wetland classification that are applicable statewide. These memoranda are submitted for review by the California Wetlands Monitoring Workgroup, The Policy Development Team, and the Interagency Coordinating Committee comprised of executive managers from State and federal agencies with regulatory authority over wetlands. Final technical review is provided by independent, refereed peer review managed by the University of California on behalf of State Water Board.

## Work Products

Technical Memoranda on specific scientific questions presented to the TAT by the Policy Team.

## Plans for 2012

In 2012 the TAT meetings will focus on drafting a definition of streams, an approach to define and design aquatic resource buffers and scientific rationale for a watershed approach to mitigation planning.

## Recent Findings and Publications

To date the TAT has developed memoranda recommending a framework for a statewide wetland and riparian area monitoring plan, a wetland definition for state regulatory purposes, a landscape approach to wetland identification, and a methodology for delineating wetlands for jurisdictional purposes. Additionally the TAT has been funded to develop guidance on wetland classification, standardization aquatic resource mapping, and to add details to the previously recommended framework for a statewide wetland and

riparian monitoring and assessment plan..

## Project Status

This project is drafting the Stream definition memorandum and working with a statewide mapping workgroup to develop protocols for standardized mapping of aquatic resources including riparian areas. TAT participants continue to participate in state, regional, and local science coordination meetings as needed to support WAPP.

# Tahoe Region Wetlands Protection Development - CA WRAMP

PROJECT CODE

**8403**

START DATE

**12/1/10**

ANTICIPATED COMPLETION

**11/30/13**

TOTAL FUNDING

**\$345,000**

FUNDING FOR SFEI LABOR

**\$229,070**

FUNDING FOR 2012 SFEI LABOR

**\$64,567**

STATUS

**Active**

DIRECT CLIENT

**EPA**

PRIMARY CLIENT

**Same**

LEAD SCIENTIST

**josh Collins**

PROJECT MANAGER

**Sarah Lowe**

COLLABORATORS

**Tahoe Regional Planning Agency (TRPA), California Tahoe Conservancy (CTC), & Lahontan Regional Water Board (RB6SLT)**

## Project Description

This project demonstrates the Wetland and Riparian Area Monitoring Plan (WRAMP) in the Tahoe Basin on behalf of the California Wetland Monitoring Workgroup of the California Water Quality Monitoring Council. This project builds capacity within the Tahoe region to implement WRAMP by transferring WRAMP tools to the Tahoe community of state and regional agencies. The tools include standardized mapping protocols, rapid assessment of ecological condition using the California Rapid Assessment Method (CRAM) and data management and reporting tools through one of the state's Regional Data Centers (RDCs). The project is conducting watershed assessments and landscape profiles within the Tahoe Basin through a collaborative multi-agency regional effort and will adjust the tools as needed for the Sierra ecoregion. The project will establish a multi-agency WRAMP Sierra Team to (1) test the ability of the draft wetland and riparian mapping protocol to depict the Sierran Stream Environment Zones that are jointly managed by Federal, State, and local agencies; (2) use the mapping protocol to assess the distribution, abundance, and size-frequency of wetlands and other aquatic habitats in demonstration watersheds; (3) integrate the Sierra ecoregion into the California Wetlands Portal by adding the base map and selected wetland projects to the Wetland Tracker; and (4) begin developing a montane wet meadow module of the CRAM.

## Work Products

- Development of a multi-agency Sierra Regional Team for project planning and review
- Sierra ecoregion base map (for two sub-watersheds in the Tahoe basin) and selected wetland projects to be added to the Wetland Tracker
- Begin developing a CRAM module for the montane wet meadow of the Sierra ecoregion.
- Watershed profiles and summary CRAM assessments of the two mapped sub-watersheds in the Tahoe basin
- Project website and factsheet for public outreach (the project website is hosted and managed by

TRPA at: <http://www.tahoemonitoring.org/tahoe-wramp.html>)

## Plans for 2012

This project will largely be completed in 2012 but final reporting and deliverables may not be completed until 2013.

## Recent Findings and Publications

One significant finding to date is that aquatic resource mapping can be greatly improved by using Lidar as the primary source of topographic information. That statewide mapping standards are being revised accordingly. Another finding, based on the Upper Truckee assessment, is that the stream set-back policy implemented over past decades to protect stream resources appears to be working; urban and rural streams have comparably high scores for overall condition. The project has abundant participation by many agencies.

## Project Status

The Sierra Regional Team has developed a charter and has provided ongoing review of workplans and products for this project. Two sub-watersheds (Upper Truckee and Third Creek) were selected for assessment. Field work for Upper Truckee has been completed. GIS staff worked with CTC and TRPA to transfer the mapping standards and ambient sample design methods for the two demonstration watersheds. The watershed maps are largely complete (will be final in early 2012), Tahoe agencies were trained in the Riverine CRAM assessment methodology, and CRAM assessments were conducted at 40 sites in the Upper Truckee watershed in the summer of 2011. Out of that work, the multi-agency CRAM assessment team is working to refine the riverine CRAM module and the wet meadow module for the Sierra snow-driven systems.

## Science & Policy Development Support for the Wetland Area Protection Policy (WAPP) Development

PRoJECT CoDE  
**8407**

START DATE  
**9/15/11**

ANTICIPATED CoMPLETIoN  
**11/15/13**

ToTAL FUNDINg  
**\$159,078**

FUNDINg FoR SFEI LABoR  
**\$95,569**

FUNDINg FoR 2012 SFEI LABoR  
**\$46,800**

STATUS  
**Active**

DIRECT CLIENT  
**EPA**

PRIMARy CLIENT  
**Same**

LEAD SCIENTIST  
**josh Collins**

PRoJECT MANAgER  
**Sarah Lowe**

CoLLABoRAToRS  
**Association of Bay Area gvernments (ABAg)**

### Project Description

This project provides additional funding for SFEI and ABAG to provide science and policy development support for the WAPP Phase 2 activities described in this Program Plan under project number 18 for 2012-2013. The project tasks and final products include: 1) Provide technical support for the WAPP; 2) Develop statewide beneficial uses for wetlands; and 3) Provide coordination among the extensive and integrated local, state, and federal wetland protection policies.

### Work Products

- Development of policy language critical for WAPP Phase 2 and supporting technical documents (e.g., Staff Report, Technical Advisory Team memos) for statewide adoption.
- Development of report with beneficial use definitions, crosswalk with beneficial uses and wetland classification system, and programmatic guidance for Regional Water Boards to adopt beneficial uses into Basin Plans.
- Coordination between State and Regional Water Board on wetland protection policies.
- Policy outreach and coordination with local, state, and federal resource agencies and interested stakeholders.
- Development of integrated “process-ready” tools and documents (e.g., Basin Plan amendment language, supporting environmental documents, etc.) that the State Water Board; other Regional Water Boards; federal, state, and local agencies; and Tribes can use to develop stream and wetland system protection strategies within their jurisdictions.

### Plans for 2012

The subcontract with ABAG will be developed early in 2012 for them to work on most of the work products listed above. SFEI’s portion of this funding is largely to provide Policy outreach and coordination with local, state and federal agencies.

Recent Findings and Publications  
N/A

### Project Status

This project is active but no work has been billed to date

## CIAP - Evaluating Head-of-Tide

PRoJECT CoDE

?

START DATE

4/1/12

ANTICIPATED CoMPLETIoN

3/31/14

ToTAL FUNDING

\$118,000

FUNDING FoR SFEI LABoR

\$110,000

FUNDING FoR 2012 SFEI LABoR

\$63,300

STATUS

**In negotiation – submitted budget to BCDC to receive funding (already approved)**

DIRECT CLIENT

**BCDC**

PRIMAry CLIENT

**DoI**

LEAD SCIENTIST

**Robin grossinger/Josh Collins**

PRoJECT MANAgER

**Ruth Askevold**

CoLLABoRAToRS

**None**

### Project Description

The goals of this study are to build awareness of the potential impacts of sea level rise and coastal flooding that may arise from the migration of the head of tide (HOT) and to develop tools to better identify its current and future location. This will be accomplished completing two primary milestones: (1) development of a protocol for identifying HOT locations (e.g., what are the HOT ecological and hydrological attributes); and (2) development of a HOT basemap and guidance for managers on how to assess HOT migration due to sea level rise and coastal flooding induced by climate change (e.g., where it is and how alternative methods of forecasting migration differ in

terms of cost and risk assessment).

### Work Products

TAC charter and roster

HOT mapping protocol

HOT basemap

HOT location map

HOT migration assessment guidance

### Plans for 2012

Development of a Technical Advisory Committee, initial head-of-tide protocol development and base mapping, field work and reconnaissance to inform base map.

### Recent Findings and Publications

N/A

## Delta Wetlands and Riparian Areas Monitoring Program

PRoJECT CoDE

**8406**

START DATE

**11/1/11**

ANTICIPATED CoMPLETIoN

**8/31/13**

ToTAL FUNDING

**\$652,883**

FUNDING FoR SFEI LABoR

**\$515,343**

FUNDING FoR 2012 SFEI LABoR

**\$368,940**

STATUS

**In Negotiation**

DIRECT CLIENT

**DWR**



PRIMARY CLIENT

**Same**

LEAD SCIENTIST

**josh Collins**

PROJECT MANAGER

**Sarah Lowe**

COLLABORATORS

**Roberts Environmental**

**DWR**

**Project Description**

The Aquatic Science Center (ASC) will assist the Department of Water Resources (DWR) with an assessment of impacts to wetlands and riparian areas for the Bay Delta Conservation Plan (BDCP) conveyance options. This assessment will contribute to the Clean Water Act 404 (b)(1) Alternatives Analysis which is required for obtaining a Section 404 permit.

The USEPA and USACE requested that Level 1 and Level 2 techniques from the Wetland and Riparian Areas Monitoring Program (WRAMP) be used to understand the distribution, abundance, and function of wetlands in the project area. WRAMP Level 1 methods include remotely sensed mapping of aquatic habitat (i.e., depression, lacustrine, estuarine, riverine, slope and vernal pool wetlands and riparian functional areas) using a vetted mapping standard and protocol ([www.sfei.com/baari/methods](http://www.sfei.com/baari/methods)). WRAMP Level 2 methods include the California Rapid Assessment Methodology (CRAM) for wetlands, a state-wide standard developed by the California Wetland Monitoring Workgroup (CWMW). DWR staff require assistance from the ASC to employ Level 1 and Level 2 WRAMP methodologies.

**Work Products**

Copy of the mapping standards and protocols used to develop the aquatic basemap

GIS data of stream network, polygonal wetlands, and riparian areas

GIS data of the CRAM survey sites and the CRAM index and attribute scores

Project report presenting the Level-1/Level-2 protocols, study design, and summaries of the CRAM results and landscape profiles for each alternative.

**Plans for 2012**

This project has ambitious goals to complete the base map early in 2012, provide CRAM trainings to the field crews, conduct the field assessments and complete the CRAM analyses and reporting by the end of the year.

**Recent Findings and Publications**

N/A

**Project Status**

This project contract is just getting started at the end of 2011 and workplan details are getting finalized and the mapping of the project's aquatic habitats has begun.

## Management Tools for Landscape-Scale Restoration of Ecological Functions

PROJECT CODE

**8702**

START DATE

**3/1/12**

ANTICIPATED COMPLETION

**1/31/15**

TOTAL FUNDING

**\$875,000**

FUNDING FOR SFEI LABOR

**\$740,706**

FUNDING FOR 2012 SFEI LABOR

**\$204,990**

STATUS

**In Negotiations**

DIRECT CLIENT

**DFg**

## PRIMARY CLIENT

**Same**

## LEAD SCIENTIST

**Robin grossinger/Letitia genier**

## PROJECT MANAGER

**Ruth Askevold/Alison Whipple**

## COLLABORATORS

**Landscape visualization: Laura Cunningham, Jennifer Natali, David Diethelm, Standord's Bill Lane Center for the American West, California Academy of Sciences.**

**Landscape Interpretation Team: including Michael Barbour (UC Davis), Brian Collins (University of Washington), Chris Enright (Delta Science Program), Geoffrey Geupel (PRBO Conservation Science), Todd Keeler-Wolf (DFG), William Lidicker (UC Berkeley), Jay Lund (UC Davis), Peter Moyle (UC Davis), Anke Mueller-Solger (Bay-Delta Interagency Ecological Program), and Dave Zezulak (DFG). Travel and/or stipends will be covered for some, but not all, members.**

## Project Description

This is a cross-disciplinary project designed to augment current restoration planning in the Delta with the tools needed to design and evaluate large-scale restoration. Building from the current SFEI-ASC research on the historical ecology of the Delta, this project will develop a more refined understanding of fundamental ecological process and function at the landscape scale and apply this to current planning efforts. This research responds to the recognized need for landscape-scale restoration planning tools that help establish ecological function along current and future physical gradients. Through this research, current conceptual model uncertainties regarding physical landscape drivers and the ecological functions they provide will be addressed. The goals of the project are to 1) quantify and compare historical and contemporary landscape attributes, 2) determine historical ecological function and compare to current functions, 3) refine conceptual models at the landscape scale and develop restoration design principles, and 4) present landscape illustrations and other visualizations of potential landscape-scale

restoration. Development of these products will be performed in close discussion with a team of scientists and managers.

## Work Products

- Summaries of meetings with the LIT
- Technical memo presenting the metrics measured for the historical and contemporary Delta and presenting landscape units of the historical Delta as defined by these metrics
- Maps of historical and contemporary Delta ecological functions, likely with annotations along themes such as species or taxonomic groups
- Memo on key changes in ecological function between the past and present Delta
- Memo on addressed uncertainties in DRERIP conceptual models
- Landscape-scale conceptual models describing ecological functions and physical drivers associated with landscape units
- Design principles and suggested performance criteria and metrics
- Memo on available opportunities for restoring functional landscape components in the contemporary and projected future landscape context
- Five public presentations
- Interactive website with maps, graphics, and artwork presenting project products

## Plans for 2012

- Develop a detailed work plan
- Organize and hold initial Landscape Interpretation Team meeting: identify criteria for selection of key ecological functions and landscape metrics
- Perform targeted research to address identified information gaps

- Assemble, prepare, and analyze historical and contemporary datasets
- Describe landscape units
- Assign ecological functions
- Begin mapping and comparing ecological functions of the past and present Delta

## Recent Findings and Publications

N/A

## Project Status

Contract in negotiations.

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## Sacramento-San joaquin Delta HE

### PROJECT CODE

**8700**

### START DATE

**6/30/09**

### ANTICIPATED COMPLETION

**9/30/11**

### TOTAL FUNDING

**\$350,000**

### FUNDING FOR SFEI LABOR

**\$327,033**

### FUNDING FOR 2012 SFEI LABOR

**\$45,893**

### STATUS

**Active**

### DIRECT CLIENT

**DFg**

### PRIMARY CLIENT

**Same**

### LEAD SCIENTIST

**Robin grossinger**

### PROJECT MANAGER

**Alison Whipple**

## Project Description

This project is intended to document the ecological and hydrogeomorphic characteristics of Sacramento-San Joaquin Delta prior to significant Euro-American modification. This historical reconstruction will illustrate, to the extent possible, patterns of variation and extent of habitats throughout the Delta to better understand species support functions and controlling physical processes within the native landscape. Such information will provide a basis for identifying target locations and physical conditions necessary to restore functional habitat mosaics within the projected future Delta landscape, and will inform the ERP Conservation Strategy and other restoration efforts.

We anticipate an additional \$25,000 (included in SFEI Administrative Expense Budget) in costs above the contracted amount to complete the final report including external technical review. Additional costs of this order were anticipated at contract acceptance, given the available funds and the large and complex geographic scope. Recognizing the statewide importance of this work and its relevance to the ASC mission, the project was undertaken. This work has already resulted in a new \$875,000 contract for ASC starting in February 2012.

## Work Products

GIS of historical habitats

Illustrated technical report documenting methods and findings accompanied by an executive summary

Public presentations

## Plans for 2012

Finalized GIS of Delta historical habitats

Draft and final report documenting project methods and findings

## Recent Findings and Publications

Findings were recently presented at the State of the Estuary Conference and at the Coastal and Estuarine Research Federation Conference.

## Project Status

The project will be complete in early 2012, which will coincide with the initiation of the new "Management

Tools for Landscape-Scale Restoration of Ecological Functions.”

## Adapting to Rising Tides Project

PRoJECT CoDE  
**8253**

START DATE  
**5/24/11**

ANTICIPATED CoMPLETIoN  
**5/23/12**

ToTAL FUNDINg  
**\$147,900**

FUNDINg FoR SFEI LABoR  
**\$147,900**

FUNDINg FoR 2012 SFEI LABoR  
**\$75,490**

STATUS  
**Active**

DIRECT CLIENT  
**BCDC**

PRIMARy CLIENT  
**Same**

LEAD SCIENTIST  
**Rainer Hoenicke**

PRoJECT MANAgER  
**Rainer Hoenicke**

CoLLABoRAToRS  
**Port of SF, Port of akland**

### Project Description

The Bay Conservation and Development Commission is evaluating shoreline vulnerability of infrastructure assets based on sea-level rise scenarios. Furthermore, BCDC is updating the San Francisco Waterfront Special Area Plan. This project is designed to assist BCDC, in partnership with the Ports of San Francisco and Oakland to prepare maps and graphics to illustrate the project area, climate impacts, location of assets, and inundation areas among other items,

and assist in the vulnerability assessment process. A second project objective relates to analyzing the potential environmental impacts of any proposed changes to the San Francisco Special Area Plan.

### Work Products

- Data compilation, including sediment contamination, public use data, and historic resources
- Maps and graphics to depict planning issues and concepts
- Updates to the project team website
- Stakeholder meeting and work group support

### Plans for 2012

The focus in 2012 will be on quantifying sea level rise impact and vulnerability for the Port of Oakland, the Airport, and selected near-shore areas of Alameda County, as well as data compilation in support of amendments needed to the SF Waterfront Special Area Plan.

### Recent Findings and Publications

- Maps both for internal use and for presentation or inclusion in Staff Reports to the Commission
- Website content with illustrations and animations, plus a web story-board for the Adapting to Rising Tides pages

Project Status  
ongoing

## *C. Environmental Data Information & Technology*

### **Regional Data Center & WL Portal**

PRoJECT CoDE  
**8604**

START DATE  
**8/1/11**

ANTICIPATED CoMPLETIoN  
**8/31/13**

ToTAL FuNDINg  
**\$1,290,298**

FUNDINg FoR SFEI LABoR  
**\$1,257,798**

FUNDINg FoR 2012 SFEI LABoR  
**\$533,000**

STATUS  
**Active**

DIRECT CLIENT  
**SCCWRP**

PRIMARy CLIENT  
**SWRCB**

LEAD SCIENTIST  
**josh Collins**

PRoJECT MANAgER  
**Cristina grosso**

CoLLABoRAToRS  
**SWRCB, SSCWRP, MLML, CVRDC, USEPA**

#### **Project Description**

This 2.5 year project provides technical assistance to grant recipients that collect water quality monitoring data by assisting them with data management services. Grant recipients will be able to show the effectiveness of their projects by making their data publicly accessible. The project will enable the Regional Data Centers (RDCs) and the California Environmental Data Exchange Network (CEDEN) to collect and make more data available in a timely and comparable manner and to assist with the SWRCB's preparation

of the Integrated Report.

#### **Work Products**

Products for this project include: (1) identify new data providers (data discovery), (2) expand and enhance the Wetlands Portal into an Aquatic Atlas, (3) transfer data to the CEDEN system, (4) develop improved data display and visualization tools, (5) develop a future data capture plan and resource assessment, and (6) coordinate activities among the four regional data centers.

#### **Plans for 2012**

In 2012, the project's focus will shift from uploading new datasets to developing more analysis and visualization tools for viewing the data in CEDEN, and to expanding and enhancing the Wetlands Portal into an Aquatic Atlas.

#### **Recent Findings and Publications**

In 2011, a CEDEN Program Manager was hired, and the primary goal of the RDCs was to contact new data providers that could contribute to the State's Integrated Report. RDCs met quarterly to discuss the progress and challenges of working with new data providers and uploading data from the RDCs to CEDEN in a timely manner. RDC representatives also met bimonthly via phone to discuss data vocabulary and database structure questions.

**Project Status**  
**Active**

### **CA LID/Stormwater BMP Tracker**

PRoJECT CoDE  
**86xx**

START DATE  
**4/1/12**

ANTICIPATED CoMPLETIoN  
**3/31/13**

ToTAL FuNDINg  
**\$250,000**

FUNDING FOR SFEI LABOR

**\$250,000**

FUNDING FOR 2012 SFEI LABOR

**\$0 – potentially 75% of the labor amount will be spent in 2012; however, there is too much uncertainty to allocate hours to staff**

STATUS

**Proposal (90% probability of funding)**

DIRECT CLIENT

**SWRCB**

PRIMARY CLIENT

**Same**

LEAD SCIENTIST

**Meredith Williams**

PROJECT MANAGER

**Kristen Cayce**

COLLABORATORS

**User group and other partners yet to be identified.**

## Project Description

An LID Tracker will enable compilation of LID BMP selection, installation, and maintenance information.

This could include documentation of BMP objectives (i.e., load reduction or hydrology improvement), sizing criteria, and placement decision factors. Maintenance and effectiveness information could also be tracked.

The Tracker will be map-based in order to enable managers to relate individual projects to landscape factors such as the catchment area of the selected BMP, nearby receiving water bodies, storm drains, aquatic resources, and adjacent land use. A map-based, web interface will allow users to find and use information easily and to review and aggregate data at multiple scales – catchment, watershed, region, and state.

## Anticipated functionality

- Online permitting;
- Installation and maintenance costs tracking;
- Tracking of target objectives for LID BMPs;

- Online mapping capabilities for mapping catchment areas and LID installation locations;
- Photo inventory;
- Report generation of LID adoption, estimated load reductions, cost-benefit outcomes, etc.;
- LID locations map generation; and
- Quantification of benefits at the watershed scale

## Work Products

Beta release version of Tracker

Pilot test of beta release for user feedback and functional validation.

## Plans for 2012

Form a User Group to identify user needs and tool functionality requirements.

Develop prototypes for User Group review

Revise prototypes for beta version

## Recent Findings and Publications

N/A

## Project Status

Stormwater Roundtable has approved the concept, but a Feasibility Study Report (FSR) is required by the SWRCB. State Board program manager, Bruce Fujimoto and Shin-Roei Lee are working with DIT (Division of Information Technology) on the required FSR documentation.

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and the SAN FRANCISCO  
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# 2012 Budget

December 7, 2011

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### C. New Strategic Directions

### D. Continuing Operational Improvements

### E. 2012 Budget

## A. Introduction

The 2012 Budget and Program Plan presentation has been revised from 2011. The Budget content is now separate from the Program Plan document and a “stand-alone” report. This revision will enable staff to provide appropriate communication and outreach to external constituents about our planned activities without including our financial highlights and budgets.

## B. 2011 in Review

### Financial Status:

We are still two months away from closing the books for the year. However, as of the end of October, we recorded a year-to-date deficit of \$151,000 that makes it unlikely for us to generate a surplus this year. In November, unbillable time for the move and the Thanksgiving holiday will show up in lower billed labor revenue, and in December, many staff members will take vacation days during the last two weeks of the month, producing the same effect. Our best estimate for a YTD deficit is approximately \$200,000.

As with any measurement, this deficit number, while disappointing and concerning, is only one measure of the health of the Institute. Staff spent significant “investment” hours on moving tasks, on strategic planning and proposal development, on values development and articulating their professional aspirations that will inform implementation steps and SMART actions in future years. We expect 2012 to be another “investment” year, as we continue the shift of the Institute and the Aquatic Science Center toward a more sustainable future.

These investments will be made possible by the ‘fully booked’ EDIT team in 2012. The team’s projects have grown in number and scope and are likely to require a revenue-generating new hire in 2012. Landscape Ecology is looking very busy in 2012, although a few project hold-overs from the bond-freeze days will spill over into 2012 that need to be completed without billable revenue. We are over-budget on two projects, with one likely getting commensurate additional funds to cover its shortfall, while the other shortfall is accounted for in the overhead budget.

## Operations:

We moved! Everything went off without a hitch, thanks to the many, many hands manning the oars. The new facility has its own character and quirks, and we are beginning to work through the long list of small adjustments required to make it an efficiently running system. During 2011, we also addressed the following:

- Completed major server updates and maintenance items
- Assessed strategic human resources and administrative personnel needs
- Assessed and updated insurance needs for SFEI and ASC
- Updated policies and procedures in the human resources arena
- Revised the Employee Benefits Plan
- Successfully completed the strategic planning process and adopted a new Strategic Plan.

All of these improvements will be tracked and adjusted as needed with a direct linkage to the strategic plan revisions to be completed in 2011.

## Board and Staff:

Both Boards are beginning to explore integration, while maintaining two separate legal entities. 2012 will see some potentially significant shifts in board composition and new expertise contributing to the implementation of the Strategic Plan.

Kelleen Griffin, our new Deputy Director, arrived in the first quarter of 2011 and began to implement numerous operational improvements that will ultimately free up scientists to dedicate more time to their areas of expertise. Dr. David Senn joined the SFEI team during the summer and has already assumed key roles in the Clean Water Focus Area. Ben Greenfield and Michelle Lent left the Institute to enter graduate programs and UC Berkeley and Davis, respectively, and Aroon Melwani accepted a scholarship in Australia to pursue his Ph.D., and will be departing at the end of the year.



In the last quarter of 2011, we laid the groundwork for operational re-design and aligning people's skill sets and strengths with our emerging implementation plan.

## C. New Strategic Directions

Staff worked diligently throughout the year to research and recommend to the Board a Strategic Plan for both SFEI and ASC. This plan was adopted in September and the associated implementation plan is now in full swing, an initiative led by Josh Collins. The Strategic Plan will take on more concrete form through a detailed implementation plan, with which we can track progress toward our priorities.

## D. Continuing Operational Improvements

Next up for the senior team is a focus on organizational design, including an alignment of our strategic plan with a revised organization chart and implementation of new financial planning practices and accounting processes.

## E. Budget Assumptions

The budget presented here is a combination of hard numbers and estimates for revenues and expenses for the coming year. All signed agreements with active contracts or grants in place have been included, while contracts in negotiation have only been included at 50% of the awarded proposal amount. While we don't doubt that our projects in negotiation will materialize, we intend to conservatively project their start dates, without jeopardizing timely completion of milestones through adding new staff capacity. Tracking recent experience, we have learned that project delays and workscope re-writes impact our forecasting. Labor costs include a 4.2% adjustment pool (excluding promotions to higher job classes). Our current billing multipliers of 2.85 for local and state governmental contracts and 2.7 for ASC projects will remain the same as in 2011, although adjustments may have to be considered in the first or second quarter of 2012, as our forensic accounting review may reveal imbalances that we need to correct. The same applies for negotiating our federal indirect cost rate.

SFEI currently has 39 full-time, benefitted employees, ten part-time benefitted staff members, and three non-benefitted temporary employees. The budget includes hiring four additional full-time staff members (one Sr. Scientist, one mid-level scientist, a database specialist, and a mid-level communications associate).

**Table 1a. Projected Revenue - SFEI**

	2012 SFEI Budget
<b>Revenue</b>	
Billed Labor	\$1,490,798
Subcontracts	\$235,000
Other Reimb Revenue	\$80,000
*Other Revenue	\$8,500
<b>Total Revenue</b>	<b>\$1,814,298</b>
*Extra revenue from equipment and other rental	

**Table 1b. Projected Revenue - ASC**

	2012 ASC Budget
<b>Revenue</b>	
Billed Labor	\$1,649,176
Subcontracts	\$415,000
Other Reimb Revenue	\$60,000
<b>Total Revenue</b>	<b>\$ 2,124,176</b>

**Table 1c. Projected Revenue RMP**

	2012 RMP Budget
<b>Revenue</b>	
Billed Labor	\$1,874,806
Subcontracts	\$1,250,000
Other Reimb Revenue	\$175,000
<b>Total Revenue</b>	<b>\$ 3,299,806</b>

**Table 1d. TOTAL Projected Revenue**

	Total Year Budget
<b>Revenue</b>	
Billed Labor	\$ 5,014,780
Subcontracts	\$1,900,000
Other Reimb Revenue	\$315,000
*Other Revenue	\$8,500
<b>Total Revenue</b>	<b>\$ 7,238,280</b>
*Extra revenue from equipment and rental income	

Tables 1a-c show the projected revenues for 2012 for SFEI, ASC, and the Regional Monitoring Program for Water Quality. Total projected revenue from all three sources is shown in Table 1d.



 **Table 2 Total Revenue & Expense**

Expenses	
Salaries	\$3,451,210
Benefits	\$945,632
Total Labor Expenses	\$4,396,841
Subcontracts	\$1,900,000
Other Reimb Expense	\$315,000
Total Direct Cost Expenses	\$2,215,000
Legal/Accounting	\$33,000
Consultant	\$20,000
Building Exp - Trash	\$5,000
Building Exp - PG&E	\$5,000
Building Exp - Water	\$5,000
Building Exp - Landscape	\$5,000
Building Exp - Elevator	\$5,000
Building Exp - Office Build outs	\$10,000
Supplies - Office & Field	\$15,000
Publications/Dues	\$3,000
Printing	\$12,000
Postage & Courier	\$5,000
Small Equip Office & Field	\$25,000
Rent	\$233,328
Equipment Lease & Rental	\$35,000
Telephones	\$30,000
Insurance	\$50,000
Repairs & Maint	\$12,000
Janitorial service	\$25,000
Travel	\$12,000
Travel - Conferences	\$22,000
Professional Development	\$25,000
Conference	\$20,000
Meetings & Events	\$8,000
Membership	\$6,000
Recruiting Costs	\$8,000
License & Taxes	\$2,000
Fundraising	\$15,000
Communications	\$15,000
Depreciation	\$75,600
Misc Payroll Expenses	\$5,000
Bank Fee	\$2,000
Bad debt & Write-offs	\$25,500
Total Admin Expenses	\$774,428
Workstation software	\$24,000
Workstation hardware	\$17,000
IT Training	\$0
Internet	\$10,120
Data Storage (Backup)	\$5,580
Server software	\$9,372
Server hardware	\$3,700
Small Equip. & Book	\$2,250
Software Dev Methodology	\$10,000
Total IT Expenses	\$82,022
<b>TOTAL EXPENSES</b>	<b>\$7,433,291</b>
Controllable Costs/Year	\$239,250
Controllable Costs/Month	\$19,938

 **Table 3 Budget Comparative**

2012 Budget	Admin Expense Budget	\$ 774,428
	IT Expense Budget	\$ 82,022
	Labor Expense Budget	\$ 4,396,841
	Direct Cost Expense Budget	\$ 2,215,000
	Total Expense Budget	\$ 7,468,291
	Total Revenue Projected	\$ 7,478,312
	Surplus/(Deficit) Projected	\$ 10,021
2011 Budget	Admin Expense Budget	\$ 799,000
	IT Expense Budget	\$ 149,250
	Labor Expense Budget	\$ 4,152,144
	Direct Cost Expense Budget	\$ 2,119,530
	Total Expense Budget	\$ 7,219,924
	Total Revenue Projected	\$ 7,334,489
	Surplus/(Deficit) Projected	\$ 114,565
2011 Projected (as of 11/1/11)	Admin Expense Projected	\$ 792,688
	IT Expense Projected	\$ 65,260
	Labor Expense Projected	\$ 4,089,663
	Direct Cost Expense Projected	\$ 1,897,953
	Total Expense Projected	\$ 6,845,564
	Total Revenue Projected	\$ 6,671,132
	Surplus/(Deficit) Projected	\$ (174,432)

Table 2 shows the projected labor, subcontract, administrative, and information technology expense line items for 2012.

The summarized budget of anticipated revenue and expenses for 2012 is shown in Table 3 in comparison to the budget for 2011, and also in comparison to the actual 10-month budget for 2011 plus projected final two months.

**Attachment 9**

Action Item	Who?	Status	Date Completed
1. SP Subcommittee to give further consideration to Goal 3 including its title and addressing the Board's discussion regarding the importance of communication.	Strategic Planning Subcommittee	Done	10/06/11
2. Meeting doodle for 1-hour SP conference call.	Ms. Seto	Done	9/21/11
3. Meeting doodle for December joint Board meeting.	Ms. Seto	Done	9/14/11
4. Email slides presentation slides to Board.	Ms. Seto	Done	9/14/11
5. Streamline agenda package distribution and new member on-boarding process.	Dr. Hoenicke Ms. Griffin	Done	12/07/11
6. Determine the number of voting members on the joint Board.		In Progress- Delegated to Board Governance Committee	
7. Add next to each action item the date it was completed.	Ms. Seto	Done	9/29/11
8. Correct typographical error on Resolution 03-11.	Ms. Seto	Done	9/12/11
9. Provide copies for all Board members of the 2011 SFEI/ASC Values Poster	Ms. Seto	In Progress	
10. SP Subcommittee to discuss missing fiscal components from Strategic Plan #3.	Strategic Planning Subcommittee	Done- See Program Plan	12/07/11

**MEETING MINUTES  
SAN FRANCISCO ESTUARY INSTITUTE  
September 9, 2011**

**Members Present:**

Jim Fiedler  
Dave Tucker  
Phil Stevens  
Trish Mulvey  
Barbara Salzman  
Fred Nichols  
Dyan Whyte (ex officio non-voting member)  
John Callaway  
Jim McGrath  
Alan Ramo  
Karen Schwinn (ex officio non-voting member)

**Non-Members Present:**

Rainer Hoenicke  
Kelleen Griffin  
Stephanie Seto  
Josh Collins  
Meredith Williams  
Meg Sedlak  
Marc Beyeler  
Page Nelson  
Judy Kelly  
Steve Ritchie

The meeting was called to order by Mr. Fiedler, Board Chair, at 9:34 a.m.

**1. Consent Calendar**

Mr. Fiedler requested that the Resolution to honor Steve Ritchie be moved to 1:00 p.m. Mr. Ritchie would be joining the meeting at that time. Dr. Hoenicke also wanted to add an agenda item to discuss the installation of a backup generator at the new building at

4911 Central Avenue. Mr. McGrath made a motion to approve the change of agenda items. The motion was seconded by Mr. Tucker and passed unanimously.

Mr. McGrath made a motion to approve the Agenda, June 3 meeting minutes, Business Line of Credit Account Change, and changes to the Bylaws. The motion was seconded by Ms. Mulvey and passed unanimously.

**Action Items:**

- ☐ Send meeting doodle for December joint SFEI/ASC Board meeting.
- ☐ Streamline agenda package distribution and new member on-boarding process.

**2. Highlights and Take-home Messages from Joint ASC-SFEI Strategic Planning Committees and ASC Board Meeting**

Dr. Hoenicke reviewed the highlights and outcomes of the joint Strategic Planning Subcommittee meetings. There was discussion about building up branding and services to make accessible to broader stakeholders. There was also curiosity amongst many Board members if a new name would be created following the merge of both Boards under one umbrella.

**3. Strategic Plan and Pathway to Implementation**

Dr. Hoenicke began by reviewing the Strategic Plan content (Preamble, Summary Slides, VMG&O, Strategic Priorities, and Appendix). He noted that implementation plans are in place and outcomes can be achieved within a three- to five-year horizon, to be reviewed and adjusted at least annually. There was discussion with regards to having a better definition of a Council of Advisors.

**Vision, Mission, Goals, & Objectives**

There was discussion amongst the Board regarding Goal 3: Forum. There was a request to create a specific goal for communication.

**Strategic Priorities**

It was noted that Strategic Plan #3 was missing fiscal components. The Strategic Planning Subcommittee will look further into this and discuss at their next meeting.

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Mr. Beyeler gave a brief update of the Strategic Planning key informants analysis along with key messages.

Mr. Ramo made a motion to adopt the Strategic Plan and Strategic Priorities. The Board will direct the Strategic Planning Subcommittee to give further consideration to Goal #3 including its title and addressing the Board's discussion regarding the importance of communication. The motion was seconded by Mr. McGrath and passed unanimously.

**Action Items:**

- ☐ The Board will direct the Strategic Planning Subcommittee to give further consideration to Goal 3 including its title and addressing the Board's discussion regarding the importance of communication.
- ☐ Send meeting doodle for 1-hour Strategic Planning Subcommittee conference call.
- ☐ Email MBA's presentation to the entire Board.
- ☐ Strategic Planning Subcommittee to discuss missing fiscal components from Strategic Plan #3.

**4. Board Roles and Responsibilities**

Ms. Griffin gave a presentation on the Anatomy of Great Boards. Her presentation covered- The Basics: the Board of Directors, Places the Board Should Add Value, Board Meeting Best Practices, The Importance of Board Dynamics, and 12 Ways a Good Board Can Be Great. There was discussion about where the Board would like to be as they move towards consolidation.

**Action Items:**

- ☐ Email Ms. Griffin's presentation to the entire Board.
- ☐ Determine the number of voting members on the joint SFEI/ASC Board.

**5. RMP Steering Committee Response re: Five-year Program Reviews**

At their meeting on June 3<sup>rd</sup>, the Board had asked about receiving a status report on an RMP external review. Dr. Hoenicke provided a memo with background information to support a discussion of this topic by the TRC and Steering Committees. The Steering Committee took up the request by the Board and prepared a response, included in the September 9 agenda package. The Board stressed the point that external reviews are

very important, as they validate program directions and relevance. The Board recognized the fact that the RMP Master Plan and the RMP workgroup process provides for a continuous review process with built-in external review. The Board felt comfortable with the Steering Committee response to continue with continuous program adaptations. However, the question of whether individual RMP contributions add up to more than the sum of each part, and higher-level questions related to the organizational issues of the RMP as a contributor to overarching “Estuary Health” assessments are probably outside of RMP purview.

## **6. Review of Action Items from June Meeting**

The Board requested that a new column be added to the action item table showing the date each item was completed.

### **Action Item:**

- ☐ Add next to each action item the date it was completed.

## **7. Admin-Fiscal Update**

Mr. Tucker summarized the Institute’s financial health indicators and budget updates. The Institute also achieved 71% of their annual funding target for non-RMP activity. Mr. Tucker noted that most trends were positive. He also mentioned that the Audit Committee decided to switch Auditors for the coming year. Dr. Hoenicke gave a brief personnel update- Dave Senn transitioned into his new role and is currently in the office at SFEI, Ben Greenfield decided to pursue a doctorate at UC Berkeley, Michelle Lent will be starting a graduate program at UC Davis, Chuck Striplen completed his Master of Science degree from UC Berkeley, and Letitia Grenier welcomed a new baby.

## **8. Executive Director’s Report**

Dr. Hoenicke reviewed the quarterly news highlights, notable impacts, and provided an update on the move to 4911 Central Avenue. Dr. Hoenicke reviewed the Program Plan update for Board approval of new projects. Because of cross-linkages, he wanted to highlight both Aquatic Science Center and SFEI funded projects.

**Action Item:**

- ☐ Provide copies for all Board members of the 2011 SFEI/ASC Values Poster at the next Board meeting.

**9. Action Items**

Mr. Tucker made a motion to approve the Program Plan update. The motion was seconded by Mr. McGrath and passed unanimously. Mr. Tucker made a motion to approve the SFEI-ASC Administrative Services Agreement Renewal. Mr. Callaway seconded the motion and passed unanimously. Mr. Fiedler made a motion to approve the installation of a backup generator at the 4911 Central Avenue location. The motion was seconded by Ms. Salzman and passed unanimously.

**Action Item:**

- ☐ Correct typographical error on Resolution 03-11.

**10. Next Steps and Proposed Items for December Agenda**

- ☐ Board member introductions/Icebreaker (30-45 minutes to get the conversation going between both Boards).
- ☐ Presentation by Judy Kelly regarding the linkage between SFEP and SFEI Strategic Plans.
- ☐ Farewell to Fred Nichols and Jim McGrath.

**11. Adjournment**

The meeting was adjourned at 3:20 p.m.



## **SAN FRANCISCO ESTUARY INSTITUTE**

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### **Attachment 10**

#### **SFEI Admin and Finance Committee Conference Call**

**November 9, 2011**

**11:00am – 12:00pm**

#### **AGENDA**

- ☐ Financial status update, planning, and tracking
  - ☐ Actual vs Budget (Attachment 1)
  - ☐ Dashboard – Financial and Operational Effectiveness (Attachment 2)
  - ☐ Financial Indicator Graphs (Attachment 3)
  - ☐ New Proposals Submitted (Attachment 4)
  - ☐ Contracts in Negotiations and Contracts Awarded (Attachment 5)
- ☐ Move & Lease Update
- ☐ Update from RINA – Mr. Howard Zangwill, Auditor
- ☐ Upcoming Priorities – First Quarter of 2012

Dial-in instructions: 888-296-6500 Guest Code: 604242



TO: Fiscal and Administration Committee  
FROM: Kelleen Griffin  
DATE: 10/28/11

## September 2011 Financial Commentary

There are just some quarters where you struggle with what to write as financial commentary. September is just such a quarter. There's no bad news, which is good. There is also no great news. So, it's a draw.

In Attachment 1, the first thing to note is the new format. The Audit Committee recommended this format and we're pleased to present what we hope is an improvement in clarity.

Top line: Labor Revenue for the 9 months that ended September 30 was \$3.625 million versus a prorated budgeted amount of \$3.9 million. Signed contracts continue to come in (approx. \$210k more in Sept., see line item 18). However, the rate slowed a bit in September, and we are hoping that will pick up in October, with a pipeline 'in negotiations' of \$4.9 million (see Attachments 4 and 5). Total Expenses for 9 months that ended September 30 are under budget by \$100k, making up for some of the slack.

Hours billed, line item number 8, were 4,938 hours - down from August by 500 hours. The lower hours billed are attributable to several conferences in September, most notably the State of Estuary, where a significant portion of the scientific staff either attended and /or participated as speakers.

The accounting team worked on A/R over the previous few months focusing on accounts that had gone over 120 days. Line items 4 and 10 reflect the outcome of those efforts: more cash on hand, lower net current assets. A/R over 90 days is still on the high side at \$145k and we will continue to monitor and make selective calls as needed. Only one contract for \$18k is in question.

If I were on the other side of the call, I would probably want to know more details about the move. The total cost of the move excluding the generator is estimated to be approx. \$101k. We have firm estimates for \$90k of this budget with a few remaining expenses still in flux. The two largest expenses of the move are the security system, approx. \$20k, and the movers, approx. \$25k. The move is slated for November 11<sup>th</sup>, with most employees powering down on the 10<sup>th</sup> and working from their homes on the 11<sup>th</sup>. The new offices are scheduled to be open on November 14<sup>th</sup>.

We are shifting into Employee Benefits Open Enrollment work right now, and have begun to receive the existing Plan's 2012 Renewal, as well as information on the cost of our benefits from other providers. The Open Enrollment dates are tentatively set for Dec. 1<sup>st</sup> through the 15<sup>th</sup>. We will provide an update of the 2012 healthcare expenses during the Program Plan and Budget Review at the December 7<sup>th</sup> Board Meeting.

## Attachment 1:

2011 Budget versus Actual							
	2011 Budget	% of Revenue	Prorated Budget for Nine Months	Actuals for Nine Months	Total Estimated Actuals	% of Revenue	Difference Over / (Under)
Labor Revenue	\$5,206,459		\$3,904,844	\$3,626,866	\$4,880,553		(\$325,906)
Other Revenue	\$8,500		\$6,375	\$6,233	\$8,588		
Less:							
Admin Expense	\$799,000	15.35%	\$599,250	\$608,017	\$772,529	15.80%	\$26,471
IT Expense	\$149,250	2.87%	\$111,938	\$51,217	\$69,543	1.42%	\$79,707
Labor Expense	\$4,152,144	79.75%	\$3,114,108	\$3,068,094	\$4,085,198	83.56%	\$66,946
Total Expenses	\$5,100,394	97.96%	\$3,825,296	\$3,727,328	\$4,927,270	100.78%	\$173,124
Surplus/(Deficit)	\$114,565	2.20%	\$85,924	(\$94,229)	(\$46,717)	-0.96%	(\$161,282)

2010 Budget versus Actual							
	2010 Budget	% of Revenue	Prorated Budget for Nine Months	Actuals for Nine Months	Total Actuals for the Year	% of Revenue	Difference Over / (Under)
Labor Revenue	\$4,986,541		\$3,739,906	\$3,445,249	\$4,505,956		(\$480,585)
Less:							
Admin Expense	\$785,300	15.08%	\$588,975	\$491,799	\$694,319	14.23%	\$90,981
IT Expense	\$124,780	2.40%	\$93,585	\$61,723	\$80,159	1.64%	\$44,621
Labor Expense	\$3,893,990	74.79%	\$2,920,493	\$2,716,365	\$3,652,018	74.83%	\$241,972
Total Expenses	\$4,804,070	92.27%	\$3,603,053	\$3,269,887	\$4,426,496	90.70%	\$377,574
Program Discretionary	\$36,000						\$36,000
Surplus/(Deficit)	\$146,471	2.81%	\$136,853	\$175,362	\$79,460	1.63%	(\$67,011)

## Attachment 2: Dashboard - Financial and Operational Effectiveness

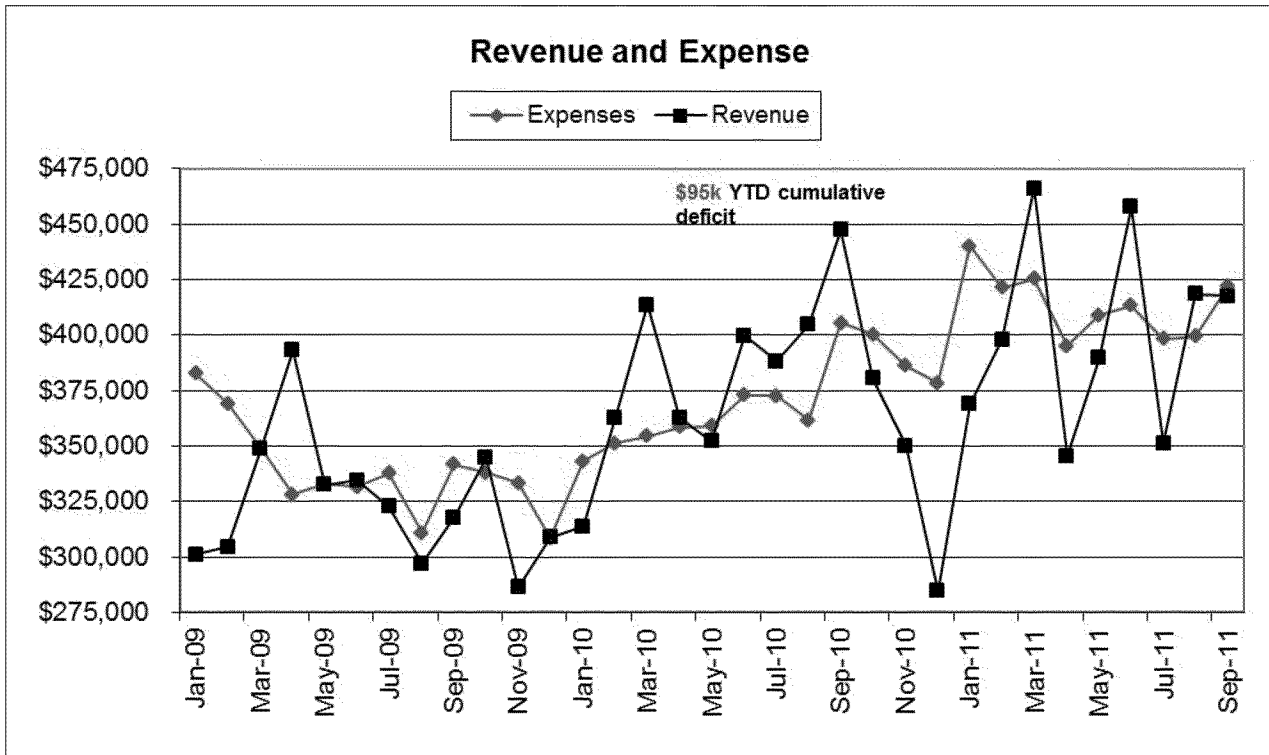
### Monetary figures in '000s

Item#	Metric	Positive / Negative Trend	2011 Target	Status	Sep	Status	Aug	Status	Jul	Definition	Notes/Corrective Action
<b>Income</b>											
1	YTD budgeted contract value / rolling actual	+	\$5,206		\$3,626		\$3,209		\$2,790		See September Financial Commentary.
	Budgeted contract value / rolling target				\$3,905		\$3,471		\$3,037		
2	Unrestricted Cash Reserve	+	\$450		\$468		\$404		\$346	Cash in hand - restricted cash	
3	Days of funding in reserve	+	40		33		30		26	Item 2 / Item 11 * 30	
4	Net Cash	+	\$250	●	\$228	●	\$168	●	\$167	Cash in hand - restricted cash - A/P - accrued payroll	
5	YTD surplus/(deficit)	—	\$45		(\$95)		(\$95)		(\$115)		
6	Monthly surplus/(deficit)	—	\$5	●	(\$0)	●	\$20	●	(\$46)		
7	Monthly billed labor revenue		\$420		\$418		\$418		\$351		
8	Hours billed	—	5,425	●	4,938	●	5,474	●	4,586		2 significant conferences contributed to lower billables.
9	Billable percentage		69.0%		64.6%		66.3%		65.1%		
10	Net Current Assets	—	\$1,125	●	\$785	●	\$876	●	\$967	Net cash + A/R	Reflects higher collections on invoices.
11	Retainage	—			\$54		\$50		\$107		
<b>Expenses</b>											
12	Total	—	\$375		\$422		\$399		\$398	Labor expense + overhead expense	Higher consultant fees - final bills received.
13	Overhead	—	\$78		\$82		\$71		\$70	All fixed and discretionary	
14	Controllables	—	\$26		\$35		\$13		\$20	Discretionary spending (consultants, conferences, travel,	
<b>Operational Effectiveness</b>											
15	Actual hours vs Projected hours	+	90%		77%		77%		71%		
16	Billable performance target	—	10%		23%		15%		24%	% staff underbilled by more than 10%	See above comment on conferences.
17	A/R > 90 days	—	\$42		\$145		\$88		\$252	Intent is to limit excessive outstanding receivables	
<b>Project Pipeline</b>											
18	Proposals contracted (rolling target)	+	\$2,520	●	\$4,033	●	\$3,824	●	\$2,422	Progress toward yearly fundraising goal of \$3.36M (SFEI labor) to cover non-RMP revenue needs + \$240k surplus	
					\$210		\$1,402		\$80		
				\$96 WAPP \$59 SoCal WL \$20 SBSP	\$1,258 RDC \$76 Grasslands \$20 Numeric EP	\$74 NB Biosent \$6 Flame Retardants					

## Attachment 3: Financial Indicator Graphs

Figure 1: Revenue and Expense

- Revenue = Billed labor revenue
  - Does not include subcontractors or other direct expenses
- Expense = Payroll + Overhead (rent, office supplies, etc.)
  - Does not include direct subcontractor fees and direct expenses
  - Does not include \$10K/mth target surplus

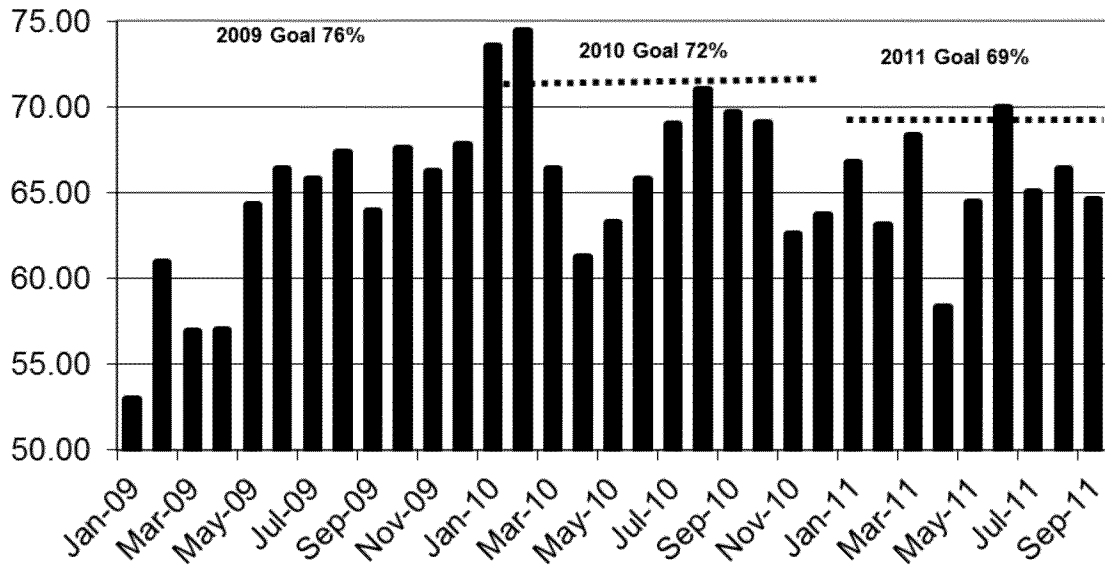


## Attachment 3 (cont)

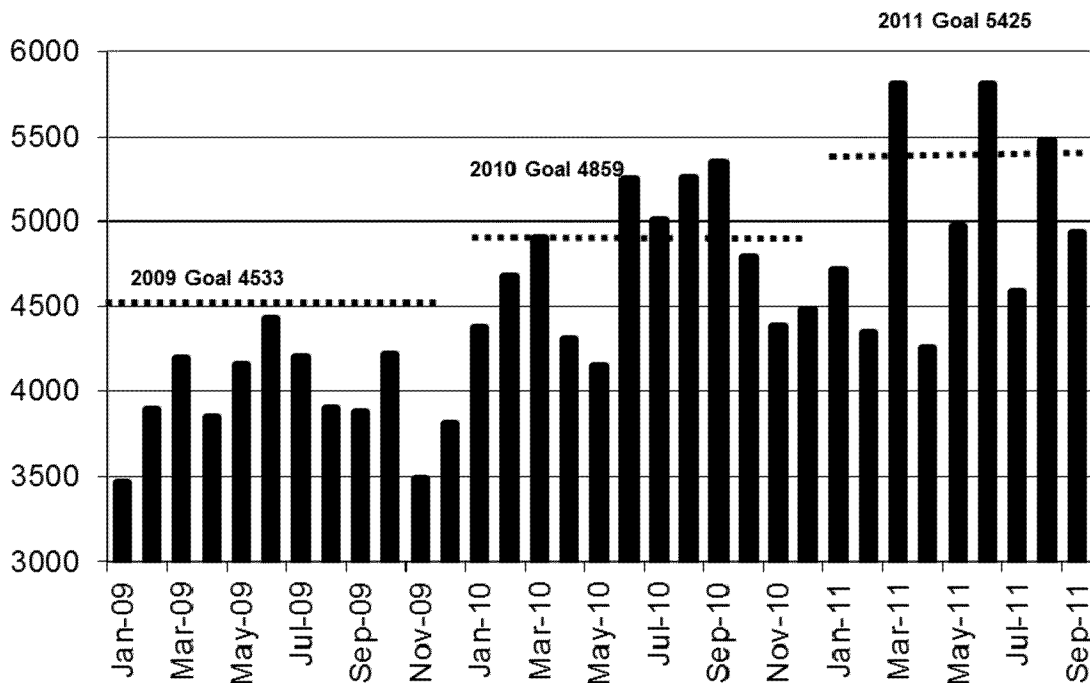
Figures 2 & 3: Monthly Billable Percentage and Hours

□ 69% billable % and 5425 hours covers expenses plus \$10K target surplus

### Monthly Billable Percentage



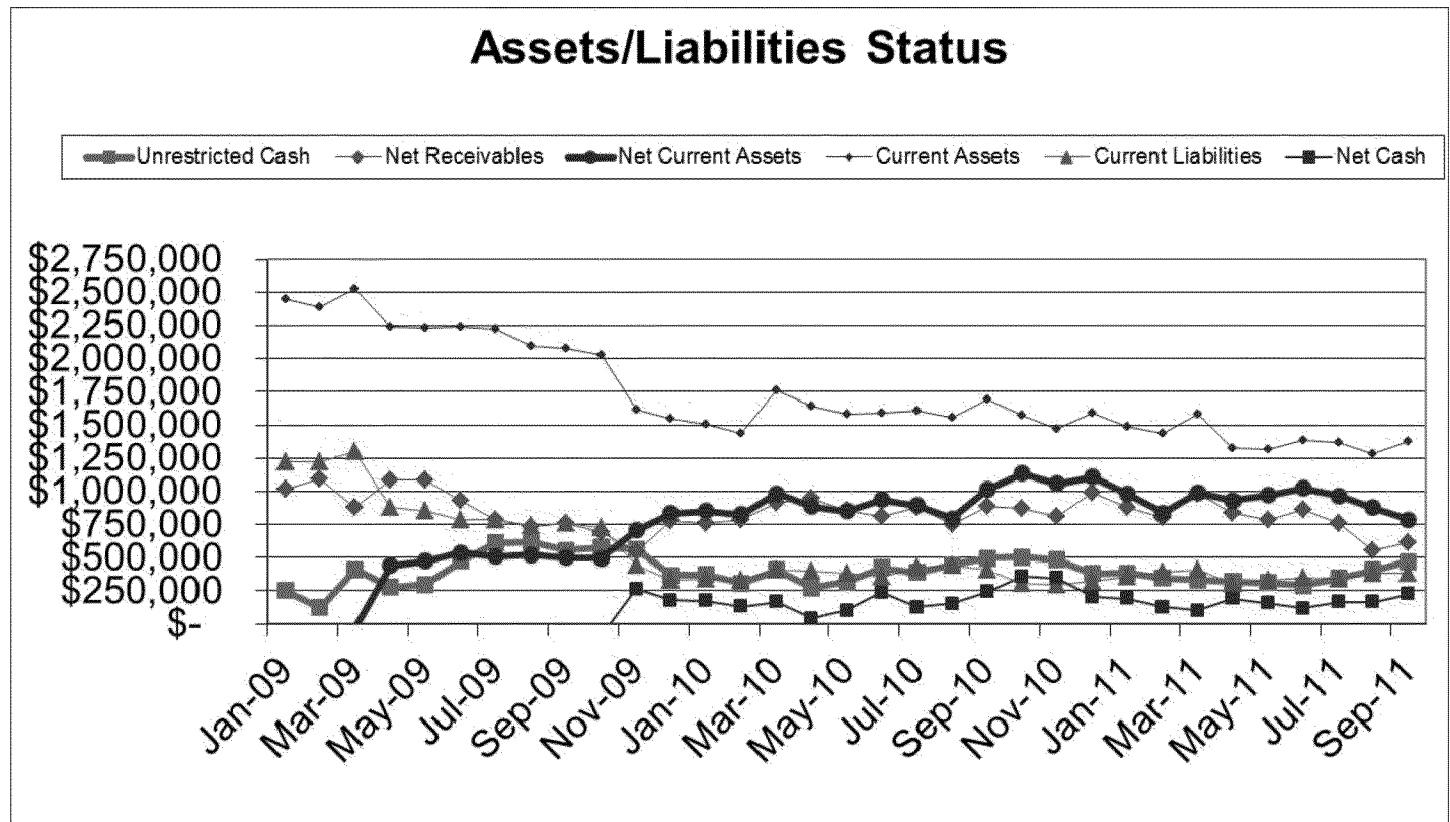
### Monthly Billable Hours



## Attachment 3 (cont)

Figure 4: Assets and Liabilities Status

- Net Receivables = SFEI portion of its outstanding accounts receivables (does not include subcontractors and other direct expenses)
- Net Cash = Cash on hand – Restricted Cash – A/P – Accrued Payroll
- Net Current Assets = Net Cash + A/R
- Current Assets = Total Cash + Total Receivables + Retainage
- Unrestricted Cash Reserve Goal = 4 months of expenses ~ \$1.7MM



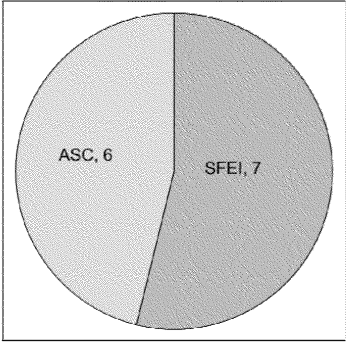
Attachment 4:

\$ Amount of Proposals Submitted	\$ 8,950,835
\$ Amount to SFEI/ASC Labor Revenue	\$ 4,182,034
\$ Amount of Awarded Proposals In Negotiations	\$ 4,973,429
\$ Amount to SFEI/ASC Labor Revenue	\$ 3,030,059
Minimum hours Spent on Proposals in Sep	83
Minimum hours Spent on Proposals YTD	943

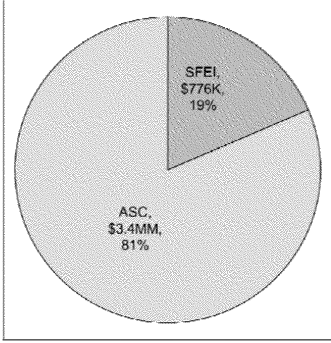
Attachment 4 (cont.):

	PI	PROPOSALS SUBMITTED	TOTAL AMOUNT SUBMITTED	AMOUNT TO SFEI/ASC LABOR	Probability of Funding			Funding Source/ Partners	Anticipated Notice of Award	Anticipated Duration (in mths)	Solicited S, Competitive C, Renewal R	Submit Date	Days Since Submittal
					≥80%	≥30%-80%	<30%						
SFEI	JC	HE for the Kashaya Heritage Management Study	\$ 100,000	\$ 100,000	80%			CalTrans/Sonoma State	Jan-12	18	S	8/17/2011	44
SFEI	LM/SP	Sedimentation Study of Arroyo Mocho & Arroyo Las Positas (Geomorphic Assistance for Zone 7	\$ 279,914	\$ 254,696	80%			Zone 7 Water Agency/Riverme	Jan-12	24	R	3/10/2011	204
SFEI	JC/DS	Development of a Sediment TMDL Implementation Tool in The Napa River	\$ 125,000	\$ 90,000		50%		EPA	Nov-11	24	C	9/16/2011	14
SFEI	MW	CA Mercury TMDL Data Compilation	\$ 88,400	\$ 88,400		60%		SWRCB	Sep-11	4	S	8/10/2011	51
SFEI	MW	LID Tracker	\$ 175,000	\$ 175,000		30%		SWRCB				8/10/2011	51
SFEI	RG	HE of the McCormack-Williamson Tract Area	\$ 50,000	\$ 50,000		70%		TNC	Oct-11	5	S	7/15/2011	77
SFEI	RG	Exploring Change Over Time	\$ 18,200	\$ 18,200		40%		Institute of Museum and	Sep-11	12	C	2/10/2011	232
ASC	MM	Applicant Pilot of Online 401/WDR Application System	\$ 12,550	\$ 12,550	90%			SWRCB		12	S	9/28/2011	2
ASC	MW	CA LID/Stormwater BMP Tracker	\$ 250,000	\$ 250,000	90%			SWRCB	Nov-11	12	S	9/27/2011	3
ASC	JC	HE for the Graton Rancheria Heritage Management Study	\$ 1,500,000	\$ 350,000	80%			CalTrans	Oct-11	51	S	8/17/2011	44
ASC	RG	Amah Mutsun Heritage Management Study	\$ 2,888,343	\$ 1,500,000		65%		CalTrans	Sep-11	36	C	8/1/2011	60
ASC	LG	Data Development for High Speed Rail Planning	\$ 3,383,428	\$ 1,268,188		60%		HSRA	Aug-11	36	S	5/5/2011	148
ASC	MM	Online 401 Rollout	\$ 80,000	\$ 25,000		10%		EPA/SWRCB	Nov-11	12	S	9/28/2011	2
TOTAL SFEI:			\$ 836,514	\$ 776,296	\$ 354,696	\$ 421,600	\$ -						
TOTAL ASC:			\$ 8,114,321	\$ 3,405,738	\$ 612,550	\$ 2,768,188	\$ 25,000						
GRAND TOTAL:			\$ 8,950,835	\$ 4,182,034	\$ 967,246	\$ 3,189,788	\$ 25,000						
Avg Contract Value			\$ 688,526										
Avg Labor SFEI/ASC			\$ 321,695										
Average Days Since Submittal			72										

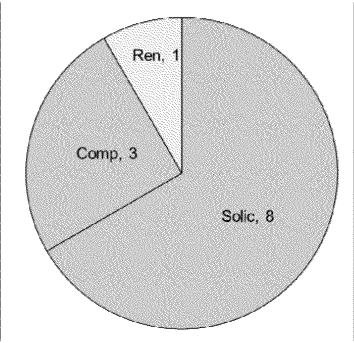
Proposals Submitted by #



Proposals Submitted by % Labor Revenue



Proposals Submitted by Type

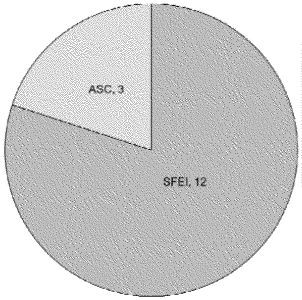




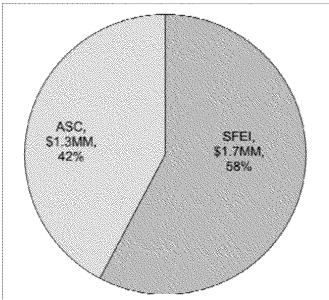
Attachment 5:

	PI	AWARDED PROPOSALS IN CONTRACTUAL NEGOTIATIONS	AMOUNT SUBMITTED	AMOUNT AWARDED	AMT TO SFEI/ASC LABOR	Funding Source/Partners	Anticipated Start Date	Anticipated Duration Date (in mths)	S,C,R	Assigned Project#	Last Updated	Days in Negotiation
SFEI	JC	CIAP - Evaluating Head-of-Tide	\$ 120,067	\$ 120,067	\$ 118,317	DOI/BCDC	Dec-11	24	S	40xx	8/17/2011	44
SFEI	JC	IRWMP Prop 84 Flood Infrastructure& DAC	\$ 655,000	\$ 655,000	\$ 655,000	DWR/SFEP/BAFPAA	Jan-12	36	C	65xx	8/17/2011	44
SFEI	JC	IRWMP Prop 84 Green Infrastructure	\$ 2,082,026	\$ 2,082,026	\$ 656,550	DWR	Jan-12	36	C	50xx	8/17/2011	44
SFEI	ND	Grasslands(Water Year 2013)	\$ 85,000	\$ 85,000	\$ 80,000	Bureau of Reclamation	Oct-12	12	R	1091	8/17/2011	44
SFEI	KC	Integration of BAAR into NWI	\$ 8,000	\$ 8,000	\$ 8,000	USFWS	Nov-11	6	S	65xx	8/17/2011	44
SFEI	LM	Guadalupe River Monitoring WY 2012	\$ 165,234	\$ 165,234	\$ 43,387	EOA	Nov-11	12	S	5080	8/17/2011	44
SFEI	MW	BASMAA POC	\$ 287,421	\$ 229,954	\$ 116,062	BASMAA	Nov-11	9	S	50xx	8/17/2011	44
SFEI	RG	Re-Oaking for Wildlife Phase I	\$ 8,000	\$ 2,600	\$ 2,600	Wildlife Conservation Commission	Nov-11	12	C	70xx	6/28/2011	94
SFEI	CS/JC	Joint Fire Science Project	\$ 42,000	\$ 79,665	\$ 60,865	JFSP/Nat'l Parks/UCB/Amah Mutsun	Oct-11	24	C	7080	4/5/2010	543
SFEI	LM	LID Monitoring Guidance	\$ 50,000	\$ 8,000	\$ 8,000	SCCWRP	Nov-11	12	S	4077	1/31/2010	607
ASC	RG	Delta Landscapes	\$ 875,000	\$ 875,000	\$ 755,935	DFG	Nov-11	36	C	87xx	8/16/2011	45
ASC	JC	Delta WRAMP	\$ 652,883	\$ 652,883	\$ 515,343	DWR	Nov-11	22	S	8406	8/15/2011	46
ASC	RG	Alamitos/Guadalupe Creek Confluence& Almaden Lake	\$ 10,000	\$ 10,000	\$ 10,000	SCWWD	Nov-11	2	S	8701	3/9/2011	205
TOTAL SFEI:			\$ 3,502,747	\$ 3,435,546	\$ 1,748,781							
TOTAL ASC:			\$ 1,537,883	\$ 1,537,883	\$ 1,281,278							
GRAND TOTAL:			\$ 5,040,630	\$ 4,973,429	\$ 3,030,059							
Average contract value			\$ 387,741									
Average contract awarded			\$ 382,571									
Average labor SFEI/ASC			\$ 233,081									
Average days in negotiation			142									
Average contract duration (in months)			19									

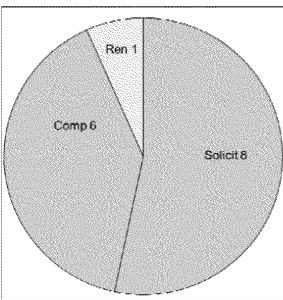
In Negotiations Submitted by #



In Negotiations Submitted by % Labor Revenue



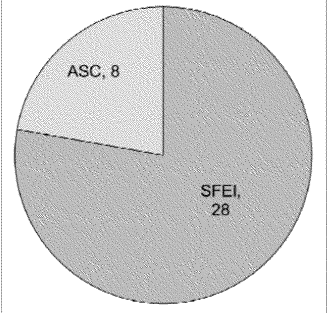
In Negotiations Submitted by Type



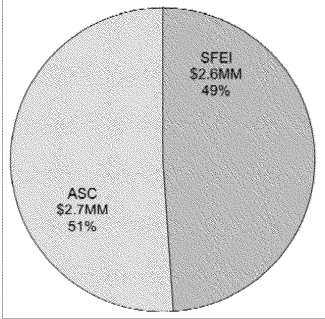
	PI	CONTRACT	SIGNED	AMOUNT SUBMITTED	AMOUNT OF AWARD	AMOUNT TO SFEI/ASC	Funding Source/Partners	Assigned Project#	S,C,R	Last Updated
SFEI	RG	On-Call Assistance for Historical Environmental Documents		\$ 5,000	\$ 5,000	\$ 5,000	SCC	7079	S	9/30/2011
SFEI	RG	*Southern California Coastal Wetland Analysis		\$ -	\$ 58,940	\$ 58,940	SCC/SCCWRP	7084	S	9/29/2011
SFEI	RG	Ecotonal Habitats		\$ 15,000	\$ 15,000	\$ 15,000	USFWS	7089	S	9/27/2011
SFEI	CS	California Valley Oaks Cal Academy		\$ 15,000	\$ 15,000	\$ 15,000	Christensen Fund	7081	C	9/14/2011
SFEI	ND	Grasslands (Water Year 2012)		\$ 80,920	\$ 81,000	\$ 76,000	Bureau of Reclamation	1091	R	8/16/2011
SFEI	DS	Technical Assistance for Development of Estuarine Nutrient Numeric Endpoints Workplan		\$ 20,446	\$ 20,446	\$ 19,646	SWRCB/SCCWRP	5079	R	8/12/2011
SFEI	RG	Napa County Flood Protection Project Interpretive Signage		\$ 10,023	\$ 10,023	\$ 9,023	Napa County/DC&E	7088	S	8/4/2011
SFEI	SK	Sixth International Symposium on Flame Retardants		\$ 6,000	\$ 6,000	\$ 6,000	DTSC	6018	S	7/18/2011
SFEI	DS	James V. Fitzgerald Area of Special Biological Significance Pollution Reduction Program		\$ 2,500,000	\$ 490,000	\$ 248,971	Prop 84/SMCDPW	5078	C	6/22/2011
SFEI	JC/KC	Riparian Buffer Width Tool		\$ 500,000	\$ 500,000	\$ 418,492	SWRCB	4081	C	6/13/2011
SFEI	ND	Grasslands (Water Year 2011)		\$ 77,070	\$ 77,070	\$ 72,070	Bureau of Reclamation	1091	R	6/8/2011
SFEI	MW	SFEP Website Support		\$ 10,000	\$ 10,000	\$ 10,000	EPA/ABAG	6526	S	6/7/2011
SFEI	ND	Grasslands (2010 Water Year add-on)		\$ 35,000	\$ 35,000	\$ 35,000	Bureau of Reclamation	5061	R	5/25/2011
SFEI	CS	Native People and Historical Ecology Research Exhibition		\$ 1,000	\$ 1,000	\$ 1,000	Los Altos Museum	7086	S	5/18/2011
SFEI	RG	North San Diego County Lagoons Historical Ecology Study		\$ 300,000	\$ 300,000	\$ 239,000	SCC/SCCWRP	7083	S	5/17/2011
SFEI	CG	Bay Area Trash Tracker		\$ 10,000	\$ 8,000	\$ 8,000	ARRA/SWRCB/ABAG	6600	R	5/17/2011
SFEI	RG	Foothill Yellow-legged Frog Connectivity Project		\$ 2,000	\$ 2,000	\$ 500	SFPUC/Stillwater	7085	S	5/1/2011
SFEI	JD	SWAMP Bioaccumulation Rivers and Streams Year 1		\$ 152,000	\$ 154,145	\$ 137,000	SWRCB/SJSURF	1066.9	R	4/18/2011
SFEI	MW/LM	Estuary 2100 Phase 2		\$ 450,000	\$ 370,000	\$ 370,000	EPA/SFEP	5069	S	4/15/2011
SFEI	LM	Fremont Roads Retrofit LID for Cleaner Stormwater		\$ 203,095	\$ 203,095	\$ 93,328	EPA/SFEP	5069	C	4/15/2011
SFEI	JC	CRAM Manual Updated & L2 Committees		\$ 44,250	\$ 44,250	\$ 44,250	EPA/SJSURF	4080	S	4/6/2011
SFEI	RG	Exploratorium Bay Observatory Exhibition		\$ 10,000	\$ 10,000	\$ 10,000	Exploratorium	7082	S	4/5/2011
SFEI	RG	Ventura Historical Ecology Study		\$ 36,000	\$ 36,000	\$ 36,000	SCC	7053	R	4/1/2011
SFEI	JC	CRAM Training		\$ 47,400	\$ 47,400	\$ 37,920	CalTrans/DWR	4073	R	3/1/2011
SFEI	JD	My Water Quality Wetlands Portal Improvements		\$ 30,500	\$ 30,500	\$ 30,500	SWRCB/SJSURF	1066.2	R	2/7/2011
SFEI	MS	Selenium in Bay Area Effluent		\$ 23,800	\$ 23,800	\$ 15,500	BACWA	1090	S	1/31/2011
SFEI	LM	Senador Creek Watershed Restoration		\$ 79,547	\$ 38,253	\$ 36,352	Santa Clara County Park District/URS	5077	S	1/19/2011
SFEI	RG	Flood Marker Art Piece at Trancas Crossing Park		\$ 14,850	\$ 14,850	\$ 1,250	City of Napa/Brewster Design Arts	7078	S	1/3/2011
ASC	JC	*Wetland Area Protection Policy: Science and Policy Development Support (WAPP)		\$ 225,072	\$ 159,078	\$ 95,569	EPA/ABAG	8407	C	9/15/2011
ASC	LG	*South Bay Salt Pond QAPP		\$ 20,000	\$ 20,000	\$ 20,000	SCC	8254	S	9/7/2011
ASC	MW	Regional Data Center & WL Portal		\$ 2,000,000	\$ 1,290,298	\$ 1,257,798	SWRCB/SCCWRP	8604	S	8/17/2011
ASC	LG	North Bay Mercury Biosentinel Monitoring		\$ 199,941	\$ 199,941	\$ 73,681	SCC/UCD	8252	S	7/1/2011
ASC	JC	WL Monitoring Tool Kit		\$ 1,250,000	\$ 795,000	\$ 392,990	CIAP	8405	C	6/16/2011
ASC	RH	Adapting to Rising Tides Project		\$ 49,900	\$ 49,900	\$ 5,000	SF Bay Conservation & Dev Commission	8253	S	5/24/2011
ASC	KC	GIS Support for RWQCB		\$ 15,000	\$ 15,000	\$ 15,000	RWQCB	8603	S	2/17/2011
ASC	TJ	Delta Water Quality		\$ 200,000	\$ 197,260	\$ 123,228	EPA/Brock Bernstein	8104	C	1/3/2011
TOTAL SFEI:				\$ 4,678,901	\$ 2,606,772	\$ 2,049,742				
TOTAL ASC:				\$ 3,959,913	\$ 2,726,477	\$ 1,983,266				
GRAND TOTAL:				\$ 8,638,814	\$ 5,333,249	\$ 4,033,008				
Average contract value				\$ 239,967						
Average contract awarded				\$ 148,146						
Average labor SFEI/ASC				\$ 112,028						

Attachment 5 (continued)

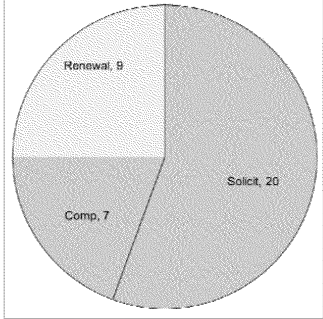
Awarded Contracts Submitted by #



Awarded Contracts Submitted by % Revenue



Awarded Contracts Submitted by Type





## RESOLUTION #04-11

### The Board of Directors of the San Francisco Estuary Institute **Resolution for 2012 Program Plan**

#### IT IS HEREBY RESOLVED THAT:

The Executive Director shall be specifically authorized to take the following actions on behalf of the Board of Directors of the Institute:

1. Maintain bank accounts in a local bank and deposit receipts of payments or contributions into the Institute's bank account; provided that the Institute's accounts will not be moved without prior written notification to the Board.
2. Acquire goods and services on behalf of the Institute as necessary for the maintenance of an efficiently operating office and staff, provided that such expenditures are consistent with the budget presented to the Board at the beginning of each fiscal year; sign checks on behalf of the Institute for all Institute expenditures relating thereto, provided that any non-routine, unbudgeted expenditure which exceeds \$15,000 shall be subject to explicit Board approval.
3. Make emergency expenditures which exceed \$15,000 if required between Board meetings only upon approval of the Administration and Fiscal Management Committee; or, if it is not possible to contact the Committee, and harm to the Institute would result if the expenditure is not made, the Executive Director shall be empowered to make such expenditures, but will immediately notify the Board of the purpose and amount of the expenditure and the cause for emergency action, and shall submit the matter to the Board for their approval at the next regular meeting.

[www.sfei.org](http://www.sfei.org)

**SAN FRANCISCO ESTUARY INSTITUTE**  
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4. Consistent with the Institute's Strategic Plan and with the Board approved Program Plan: Represent the Institute in negotiations or solicitations related to the procurement of funding for the Institute's programs; sign as the Institute's authorized representative on applications or proposals for grants or contracts, permit Principal Investigators to explore potential projects and funding, and through the Executive Director, report to the Board; and with prior notification to the Board, accept awards of such grants, contracts or other funding arrangements.
5. Sign as the Institute's authorized representative on all State and Federal tax and other such official forms as necessary to the ordinary conduct of the corporation.
6. Maintain a qualified staff of scientific, technical and office professionals in accord with the personnel policies of the Institute; provided that the director must obtain authorization from the Board, at a regular meeting, for the creation of any new permanent position.
7. This Resolution is approved and effective only for the period of the 2012 Program Plan.

Approved:

Date:

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James Fiedler, Chairman

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## **RESOLUTION #05-11**

### **BOARD OF DIRECTORS SAN FRANCISCO ESTUARY INSTITUTE**

A RESOLUTION AUTHORIZING AND DESIGNATING A REPRESENTATIVE TO NEGOTIATE CONTRACTS OR AGREEMENTS ON BEHALF OF THE SAN FRANCISCO ESTUARY INSTITUTE.

**WHEREAS**, the Board authorizes all contracts or agreements on behalf of the Institute: and

**WHEREAS**, the Board designates the Executive Director to sign all contracts, agreements and any amendments thereto; and

**NOW, THEREFORE, BE IT RESOLVED**, that the Board of Directors of the San Francisco Estuary Institute hereby authorizes Rainer Hoenicke to negotiate and execute all grants or contract agreements consistent with the Institute's Strategic Plan and Board approved Program Plan.

APPROVED AND ADOPTED the 7<sup>th</sup> day of December, 2011.

I, the undersigned, hereby certify that the foregoing Resolution No 05-11 was duly adopted by the Board of Directors of the San Francisco Estuary Institute by roll call vote.

Attest: \_\_\_\_\_

James Fiedler  
Chairman, SFEI Board of Directors

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